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U.S. WAR DEPARTMENT

CAVALRY FIELD MANUAL

Volume I — *2*

HORSE CAVALRY

1938

CAVALRY FIELD MANUAL



Volume I HORSE CAVALRY

Prepared under direction of the
Chief of Cavalry



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WAR DEPARTMENT,
WASHINGTON, *January 3, 1938*

Cavalry Field Manual, Volume I, Horse Cavalry, is published
for the information and guidance of all concerned.

[A. G. 062.11 (8-3-37).]

BY ORDER OF THE SECRETARY OF WAR:

MALIN CRAIG,
Chief of Staff

OFFICIAL:

E. T. CONLEY,
Major General,
The Adjutant General.

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TABLE OF CONTENTS

	Paragraphs	Pages
CHAPTER 1. Mounted cavalry drill.		
SECTION I. General principles of drill.....	1- 10	1- 4
II. Commands.....	11- 15	4- 5
III. Signals.....	16- 18	6- 11
IV. Rifle squad.....	19- 61	11- 28
V. Rifle platoon.....	62- 83	28- 37
VI. Light machine-gun squad.....	84- 97	38- 42
VII. Light machine-gun platoon.....	98-112	42- 47
VIII. Rifle troop.....	113-129	47- 58
IX. Machine-gun squad.....	130-151	58- 70
X. Elementary gun drill, machine gun.....	152-168	70- 84
XI. Advanced gun drill, machine gun.....	169-191	84- 99
XII. Machine-gun section.....	192-207	100-105
XIII. Machine-gun platoon.....	208-223	105-111
XIV. 37-mm gun squad.....	224-227	111
XV. Elementary gun drill, 37-mm gun.....	228-243	111-118
XVI. Advanced gun drill, 37-mm gun.....	244-251	118-125
XVII. 37-mm gun section.....	252-255	125
XVIII. Machine-gun troop.....	256-269	125-132
XIX. Staff platoon.....	270-271	132
XX. Communication platoon.....	272-273	132-133
XXI. Scout-car platoon.....	274-280	133-136
XXII. Transportation platoon.....	281-284	136-137
XXIII. Headquarters troop.....	285-288	137-139
XXIV. Squadron.....	289-299	139-146
XXV. Regiment.....	300-305	146-149
XXVI. Brigade and division.....	306-308	149-150
CHAPTER 2. Dismounted drill, shelter tent pitching, and instruction, mounted, with rifle.		
SECTION I. Dismounted drill.....	309-332	150-158
II. Shelter tent pitching.....	333-336	159-161
III. Instruction, mounted, with rifle.....	337-348	161-162
CHAPTER 3. Ceremonies and inspections.		
SECTION I. General provisions and initial formations.....	349-355	162-169
II. Reviews.....	356-360	169-177
III. Parades.....	361-363	178-181
IV. Escorts.....	364-337	181-188
V. Inspections.....	368-372	188-199
CHAPTER 4. Scouting and patrolling, mounted.		
SECTION I. Mounted scouting.....	373-381	199-202
II. Instruction to mounted patrols.....	382-393	202-205
III. Conduct of mounted patrols.....	394-406	205-210

(III)

CHAPTER 5. Combat training of small units.	Paragraphs	Page
SECTION I. General provisions.....	407-418	210
II. Rifle squad.....	419-431	214
III. Rifle platoon.....	432-441	220
IV. Light machine-gun squad.....	442-450	228
V. Light machine-gun platoon.....	451-459	229
VI. Rifle troop.....	460-470	231
VII. Caliber .30 (heavy) machine-gun squad.....	471-479	247
VIII. Caliber .30 (heavy) machine-gun section.....	480-488	250
IX. Caliber .30 (heavy) machine-gun platoon.....	489-497	252
X. 37-mm gun squad.....	498-503	257
XI. 37-mm gun section.....	504-509	258
XII. Caliber .30 (heavy) machine-gun troop.....	510-518	259
XIII. Caliber .50 (HB) machine-gun squad.....	519-524	263
XIV. Caliber .50 (HB) machine-gun section.....	525-528	264
XV. Caliber .50 (HB) machine-gun platoon.....	529-532	265
XVI. Caliber .50 (HB) machine-gun troop.....	533-540	266
XVII. Staff platoon.....	541-544	269
XVIII. Communication platoon.....	545-548	270
XIX. Scout-car platoon.....	549-553	273
XX. Transportation platoon.....	554-557	280
XXI. Headquarters troop.....	558-562	282

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WAR DEPARTMENT,
WASHINGTON, *January 3, 1939.*

CAVALRY FIELD MANUAL
VOLUME I

HORSE CAVALRY

Cavalry Field Manual, Volume I, January 3, 1938, is changed as follows:

2. **Explanation of movements.**—*a.* Movements are explained to the right, to the left, or to the right and to the left. In all cases they may be executed either to the right or the left, unless specifically excepted, by stating the desired direction in the command.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

11. **Means of transmission.**—*a.* * * *

* * * * *

(4) Audible signals (whistle, bugle, horn).

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

62. **Organization.**—The rifle platoon normally consists of three squads and a platoon headquarters consisting of the platoon leader (lieutenant), platoon sergeant, file-closer sergeant, and two messengers.

[A. G. 062.11 (11-4-38).] (1938.)

65. **The guide.**—When the platoon is in line in close order, all troopers in the rank regulate on the guide of the platoon. In all line formations in extended order, the troopers in each squad regulate on their squad leader who in turn regulates on the base. In column formations the guide is habitually right.

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

89. Rifle squad movements applicable.

* * * * *

Advances by covered routes, by rushes, or by infiltration.

[A. G. 062.11 (11-4-38).] (1938.)

104. To form the light machine-gun platoon.

* * * * *

b. Dismounted.—The platoon is formed dismounted by the commands and methods prescribed for dismounted drill.

[A. G. 062.11 (11-4-38).] (1938.)

116. Execution of movements.

* * * * *

c. When necessary, line may be formed to a flank from column of fours or column of fours from line by wheeling by fours. These movements are exceptional and do not terminate with the correct intervals or distances which must be gained gradually.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

117. To form the troop.—* * *

a. To form dismounted at the barracks, the first sergeant commands: **FORM TROOP**. Each of the platoon sergeants forms his platoon on its parade ground as prescribed for the platoon and in its relative position according to its permanent numerical designation. After verification of the platoons, the first sergeant places himself 6 yards in front of the platoon sergeant of the platoon selected as the base. The other platoons, if not already alined without interval on the base platoon, are dressed on it. The first sergeant then commands: **REPORT**. Each platoon sergeant in turn, beginning on the right, reports as prescribed for the rifle platoon in section V. The first sergeant returns the salute of each platoon sergeant.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

137. To form the squad.

* * * * *

b. To form dismounted for gun drill, commands and movements are as stated in paragraph 157a.

[A. G. 062.11 (11-4-38).] (1938.)

139. Rifle unit movements applicable.—Route order, to rest, to march to the front, to halt, and to change direction are executed in the same manner as by rifle units.

[A. G. 062.11 (11-4-38).] (1938.)

147. To extend the squad in depth.—The commands are: 1. *Column of threes*, 2. *At (so many) yards distance*, 3. *MARCH*. The threes move out successively in the order prescribed for column and at the distance indicated in the order. All sets of threes except the leading set decrease the gait 1° to obtain the required distance. The squad leader indicates the point where the squad is to be assembled. This movement is useful in crossing a fire-swept or exposed area.

[A. G. 062.11 (11-4-38).] (1938.)

151. To go out of action.—* * *

a. *Caliber .30 (heavy) machine gun.*

* * * * *

(2) Upon the arrival of the led horses, the squad leader commands: *PACK*. Nos. 1 and 2 pack the gun, tripod, and ammunition box on pack horse No. 1, in reverse order to that in which it was unpacked. When this is accomplished, they assist No. 3 in completing the loads of pack horses Nos. 2 and 3 if necessary. No. 3 packs any remaining ammunition on pack horses Nos. 2 and 3 in case these horses are not fully loaded; otherwise he assists Nos. 1 and 2 in packing pack horse No. 1. When practicable, the water jacket on the gun is refilled immediately. In replacing ammunition boxes, care must be taken to balance the loads by placing the same number of full boxes on each side of the horse. The ammunition box placed on pack horse No. 1 is habitually a full box. The squad leader and Nos. 1 to 3, inclusive, mount.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

Figure 19, page 72, is changed as follows:

CAVALRY FIELD MANUAL

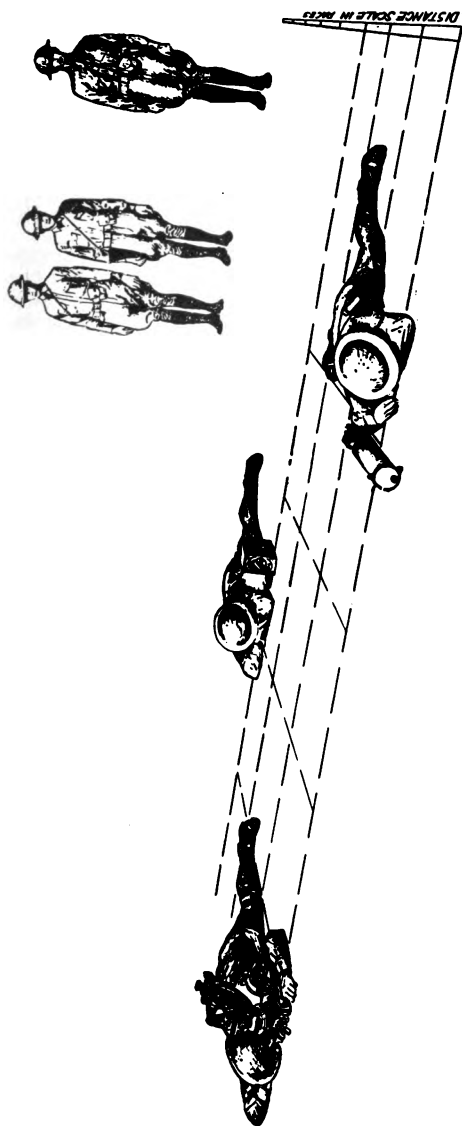


FIGURE 19.—The squad posted for elementary gun drill.

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

161. To examine the gun equipment.—* * *

* * * * *

c. With caliber .50 M3 tripod.—* * *

(6) Sets deflection disk at zero.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

162. To mount the tripod.

* * * * *

NOTE.—Adjustments of the front leg extension are made before stooping to spread the trails. Adjustments of the trail extensions are made after spreading them. All extension latches and extension clamps must be tightened securely.

[A. G. 062.11 (11-4-38).] (1938.)

163. To dismount the tripod.—*a. M1917 and M1917A1 tripods.*—In the last line, change the word “left” to “right”.

[A. G. 062.11 (11-4-38).] (1938.)

167. To unload the gun.—*a. Caliber .30 gun.*—In the next to the last line, change the word “bolt” to “belt”.

[A. G. 062.11 (11-4-38).] (1938.)

168. To clear the gun.—*a. Caliber .30 (heavy) gun.*

* * * * *

(2) No. 2 lifts the belt up and removes it from the feedway.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

FIGURE 27.—Gun mounted for firing down hill.

[A. G. 062.11 (11-4-38).] (1938.)

186. To put on quadrant elevation.—The gun being laid for direction, the corporal commands: **QE (QUADRANT ELEVATION) 20 (45, 80), or QE MINUS 10 (15, 20).** At this command the corporal sets the clinometer at 20 mils. In the meantime No. 1 operates the elevating handwheel until the elevating screw threads are exposed about 1 inch (M1917 tripod), $\frac{3}{4}$ inch (M1917A1 tripod). The corporal loosens the * * * gage zero.

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

201. To march to the rear.—The commands are: 1. *Threes left about*, 2. *MARCH*, or 1. *Squads to the rear*, 2. *MARCH*. Each three executes *left about*, or each squad executes *column left about*, as prescribed in section **IX**.

[A. G. 062.11 (11-4-38).] (1938.)

FIGURE 32.—Line of sections, column of sections, assemble, action front, and squads to the rear.

[A. G. 062.11 (11-4-38).] (1938.)

224. Organization.—The organization of the 37-mm gun squad is the same as the machine-gun squad (sec. **IX**) with the following exceptions:

* * * * * *

[A. G. 062.11 (11-4-38).] (1938.)

225. Formations and movements.—The 37-mm gun squad forms and maneuvers by the same commands and in the same manner as the machine-gun squad. (See sec. **IX**.)

[A. G. 062.11 (11-4-38).] (1938.)

229. Composition of the squad for gun drill.—*a.* The squad for gun drill consists of one corporal and three to six privates, with squad equipment, less saddle and pack equipment, side arms, and the 37-mm gun sights.

* * * * * *

[A. G. 062.11 (11-4-38).] (1938.)

239. To dismount the carriage.—In the last line, change the word “left” to “right”.

[A. G. 062.11 (11-4-38).] (1938.)

241. To dismount the gun.—At the command *Dismount gun*, by the corporal, the gun is dismounted as follows: The ammunition chest is passed to the rear by No. 2 as he rises from his position on the right of the gun. It is retrieved by No. 3, who resumes his post as described in paragraph **234a**. No. 1, assisted by No. 2, disengages the elevating screw clutch from the latch. This is done by pressing the forefinger of the right hand on the knurled surface at the front of the latch and pushing the elevating screw handwheel assembly forward as No. 2 lifts up the breechblock. The clutch being disengaged, No. 2 rotates the trunnion bearing wing nuts forward, releasing the trunnions from their bearings. He then grasps the

CAVALRY FIELD MANUAL

barrel with his right hand, the back of the hand to the left, near the muzzle, and with three fingers of the left hand in the breech recess of the breechblock, lifts the barrel and recoil mechanism assembly up and forward, dismounting the gun from the carriage. Turning to the right, he moves at a run and resumes his post as described in paragraph 234a. The gun being dismounted from the carriage, No. 1 dismounts the carriage and resumes his post as described in paragraph 234a.

[A. G. 062.11 (11-4-38).] (1938.)

249. To take the gun out of action.—a. * * *

* * * * *

(3) The gun being mounted at a position where there is scant cover and it is desired to disguise from enemy observers the action of the gun crew, the corporal commands: **OUT OF ACTION, SCANT COVER**. At this command Nos. 1 and 2 crawl forward and working together dismount the gun from the tripod, keeping in a prone position and avoiding any exposure. No. 2 carries the dismounted gun to the rear (or wherever the corporal directs) as described in paragraph 247b(1). No. 1 prepares the carriage for carrying it by hand, keeping a prone position and avoiding any exposure. He then crawls to the rear (or wherever the corporal directs), dragging the carriage as described in paragraph 247b(2). When the members of the gun squad have reached the desired position, the corporal may command **March order**.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

253. Formations and movements.—The 37-mm gun section forms and maneuvers by the same commands and in the same manner as the machine-gun section. (See sec. XII.)

[A. G. 062.11 (11-4-38).] (1938.)

266. Route order.—At the command **Route order**, given when in column of threes, column of twos, or column of troopers, each platoon executes **route order** and the second and third platoons, the 37-mm gun section, and the rear echelon of troop headquarters close to 4 feet distance. The leader of the first platoon maintains his distance of 6 yards behind the troop commander.

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

277. Being in line, to form column of cars or column of sections.

* * * * *

b. Being in line, to form column of sections, the platoon leader commands or signals: 1. *Column of sections*, 2. *MARCH*. The platoon leader's car and motorcycle move to the front, or in the desired direction, followed by the base section at a distance of 30 yards. The remaining sections oblique and follow the base section in the order: left section, right section. The base section is the center section in line unless otherwise ordered.

[A. G. 062.11 (11-4-38).] (1938.)

290. Squadron headquarters.

* * * * *

c. *Staff officers*.—Squadron staff officers (other than the adjutant), who may be present, ride in line in order of rank from right to left, the senior 2 yards in rear of the squadron commander with intervals of 2 yards between individuals.

[A. G. 062.11 (11-4-38).] (1938.)

FIGURE 37.—Mass, line of troop columns, and line of troop columns of platoons.

[A. G. 062.11 (11-4-38).] (1938.)

301. Regimental headquarters.—a. *Regimental commander*.

* * * * *

(5) The regimental commander, when leading his regiment, is habitually posted 24 yards in front of the leader of the base squadron. When the regimental commander is accompanied by any members of the headquarters troop, the distance is measured from the major of the leading squadron to the rear element of the group accompanying the regimental commander. When not leading, the regimental commander goes wherever his presence is necessary, leaving instructions with the lieutenant colonel or the senior squadron commander as to direction, gait, and anything else necessary.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

308. Armored-car troop, cavalry division.—No drill is prescribed herein for the armored-car troop of the cavalry division. In general, its drill should conform to that prescribed in Cavalry Field Manual, volume II for the armored-car troop mechanized cavalry.

[A. G. 062.11 (11-4-38).] (1938.)

352. To form horse cavalry regiment for dismounted ceremonies.—* * *

* * * * *

b. All movements are executed at the quick time except that, at *Adjutant's call* the guidons are brought forward at the double time.

[A. G. 062.11 (11-4-38).] (1938.)

360. Presentation of decorations.—*a. Mounted ceremony.*

* * * * *

(3) * * *

(a) The persons to be decorated form in single rank in front of the center of the command and 6 yards in front of the line of squadron commanders. These individuals form in groups according to rank of decorations, within each group according to rank of individuals, highest ranking decoration and individual on the right, respectively.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

FIGURE 39.—Simple sketch.

[A. G. 062.11 (11-4-38).] (1938.)

423. Defense.

* * * * *

c. Meeting an attack.

* * * * *

(2) If an attack is preceded by an artillery preparation, troopers remain under cover during the preparation and assume their firing positions the instant the preparation ceases.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

424. Patrol.—A squad may be employed as a patrol on reconnaissance or security missions. It should be given specific instructions as provided in **section II, chapter 4**. These missions are performed in accordance with the principles contained in **section III, chapter 4**.

[A. G. 062.11 (11-4-38).] (1938.)

476. Change of positions.

* * * * *

b. Whenever possible, change of positions involving movement over a considerable distance should be made in pack with the members of the squad either mounted or dismounted. Where hostile fire will not permit of a mounted advance, gun and ammunition packs may be led forward by dismounted men. Frequently, however, the change must be made by hand, in which case the methods prescribed in **section XI, chapter 1**, will be used.

[A. G. 062.11 (11-4-38).] (1938.)

493. Initial firing positions.—a. Selection.

* * * * *

(6) *Reconnaissance and security.*—(a) The platoon leader of a platoon attached to an advance, flank, or rear guard, or to a reconnaissance or counterreconnaissance detachment should maintain a continuous map and visual reconnaissance of the terrain for gun positions from which he can place fire to assist the rifle unit in the execution of its plan. When a combat situation arises, he amplifies this by as detailed a personal reconnaissance as time permits and selects positions, as described above, for the type of action contemplated.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

506. Assignment of missions.—Missions will normally be assigned to the section in terms of the tasks to be accomplished. The section leaders formulate and issue fire orders, as prescribed in **chapter 3, part 4, BFM, volume III**.

[A. G. 062.11 (11-4-38).] (1938.)

CAVALRY FIELD MANUAL

511. Employment.—* * *

* * * * *

b. In bivouac.—The troop should be prepared both day and night to support the outpost and assist in the antiaircraft defense.

* * * * *

[A. G. 062.11 (11-4-38).] (1938.)

549. Organization.—The scout-car platoon consists of 10 scout cars and 4 motorcycles. The platoon is normally divided into a small headquarters of 1 scout car and 1 motorcycle; and 3 sections of 3 scout cars with 1 motorcycle each. The tactical situation may necessitate a section of 2 or more scout cars.

[A. G. 062.11 (11-4-38).] (1938.)

558. Organization.—The headquarters troop consists of regimental headquarters, troop headquarters and 4 platoons: staff, communication, scout-car, and transportation.

[A. G. 062.11 (11-4-38).] (1938.)

In the table on page 284, in the left-hand column under OFFICERS, change "Regimental officers:" to read "Troop officers:"

[A. G. 062.11 (11-4-38).] (1938.)

BY ORDER OF THE SECRETARY OF WAR:

MALIN CRAIG,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

CAVALRY FIELD MANUAL

VOLUME I

HORSE CAVALRY

(The matter contained in this volume, together with that contained in volumes II and III, supersedes TR 425-15, July 31, 1925 (including C1, January 2, 1929); 425-20, June 25, 1926 (including C1, January 3, 1928); 425-25, March 30, 1923 (including C1, January 2, 1929); 425-30, April 4, 1922 (including C1, January 3, 1928, and C2, January 2, 1929); 425-35, April 4, 1922 (including C1, January 2, 1929); 425-45, June 1, 1925 (including C1, January 3, 1928, and C2, January 2, 1929); 425-50, April 28, 1922 (including C1, January 2, 1929); 425-55, April 28, 1922; 425-60, December 29, 1921; 425-65, May 10, 1925; 425-70, May 18, 1925; 425-75, March 3, 1924; 425-80, March 3, 1924; 425-85, July 28, 1925; 425-110, March 17, 1925 (including C1, January 2, 1930); 425-130, March 15, 1926 (including C1, January 3, 1927; C2, January 3, 1928; and C3, January 2, 1929).)

CHAPTER 1

MOUNTED DRILL

SECTION I

GENERAL PRINCIPLES OF DRILL

1. **Purpose.**—The purpose of cavalry drill is to permit the rapid and flexible maneuver of the various units to facilitate their tactical employment mounted or dismounted.

2. **Explanation of movements.**—*a.* All movements are explained to the right only. Unless specially excepted, they can be executed in a similar manner to the left by substituting left for right in the command.

b. Except where specifically provided otherwise, dismounted movements are executed on the same principles and in the same manner as the corresponding movements mounted.

3. **Formations.**—Subordinate elements may be arranged with regard to one another in *line*, *column*, or *echelon*. Line and column formations are applicable to both close and extended order. Echelon formations are gained by specific instructions describing the formation desired. Echelon is normally used only for extended order. Units are referred to by their position as leading, center, or rear in column; and right, center, or left in line.

4. Intervals and distances in close order.—*a.* The interval between troopers when mounted is 6 inches between knees; when dismounted, 4 inches between elbows.

b. The distance between troopers is 4 feet from head to croup when mounted. When dismounted the distance is 92 inches between fours, 40 inches between twos, and 14 inches between troopers.

5. The base.—*a.* In column and echelon formations, the base element or subdivision is the one which is leading.

b. In line formations the base is normally the center element or subdivision. Any element may be designated as the base.

6. The leader and the base.—*a.* The commander of each unit is its leader. He marches in the direction and at the gait or pace desired, followed at the prescribed distance by the base.

b. The commander, leaving the guidance of the base to a subordinate, may go where his presence is necessary or desirable.

7. Methods of assuming line and column formations.—*a.* *Line.*—Line formations are gained from any column formation by a fan-shaped deployment. The line is formed by the successive arrival of elements abreast of the base. Except in the squad, and when specifically provided otherwise in this manual, the second element or subdivision in column moves up on the left of the base, the third element or subdivision moves up on the right of the base, and so on, alternately. When line is to be formed facing in any direction other than the direction of march, the head of the column is turned in the new direction before the deployment is ordered. Subordinate elements move by the most direct route and remain in column formation until they arrive close to their new positions.

b. *Column.*—Column formations are formed from any line formation by successive movements of elements to their proper position in rear of the base, the latter moving in the indicated direction. Except in the squad and when otherwise specifically provided, the base is followed alternately by the elements or subdivisions on its left and right. Subordinate elements initiate their movement by forming column and moving by the most direct route to their new positions.

c. *Exceptional method of assuming line or column.*—(1) In emergencies, line may be formed from column or column from line by wheeling by fours.

(2) Units may be moved a short distance to a flank by the same method.

8. To change direction.—To change direction, the leader of the base turns in the new direction on the arc of a circle followed by the base. If the unit is in line, other elements regulate on the base. If the unit is in column, elements in rear of the base change direction successively in the same manner and on the same ground as the base.

a. When mounted.—The leader of the base unit conducts the unit at the gait of march so that the pivot moves on the arc of a circle with a radius of 2 yards at the walk, 4 yards at the trot, or 6 yards at the gallop.

b. When dismounted.—The leader of the base unit conducts the unit so that the pivot trooper turns on the arc of a circle with a radius of 1 pace. The marching flank maintains the pace.

c. Mechanized or motorized unit.—The leader of the base unit conducts the unit at the rate of march so that the pivot moves on the arc of a circle with a radius of 15 yards. Drivers regulate their speed to keep their vehicles on line with the guide.

9. Gaits in mounted evolutions.—*a.* In movements from the halt, or when marching at the walk, if the gait is not specified in the command the base unit takes or maintains the walk.

b. Line is formed to the front from column by increasing the gait of the rear elements without command or by indicating a gait for them. The head of the column preserves the gait of the march. When the formation must be hastened or executed in a restricted space, the leader of the leading element diminishes its gait or halts it, according to the object in view. When an increased gait is indicated in the preparatory command or during the execution of the movement, it applies only to those elements which have not completed the movement. If a decrease in gait is ordered, it applies to the base and those elements which have completed the movement.

c. Column is formed to the front from line on the base element at the gait of march, or at the gait ordered. The other elements take or maintain the next slower gait, or halt, until they can take their places in column.

d. In all other movements, if the units have equal distances to go, they move at the gait of march or at that indicated in the

command. If the distances are not equal, the base unit maintains the gait of march or takes that of the leader; the other units take a correspondingly slower or faster gait and on arriving at their places take the gait of the base unit. The leader of the base unit regulates its gait so as to facilitate the formation or to attain the object in view.

10. Pace in dismounted movements.—a. In movement from the halt or when marching in quick time, if the pace is not specified in the command, the base element takes or maintains quick time.

b. (1) Line is formed to the front from column without increasing the pace of any elements unless a new pace is ordered. The leading element continues until halted. The other elements march toward their proper places until they have arrived on the line, when they halt abreast of the base.

(2) If marching in quick time, or if at a halt, and double time is indicated in the preparatory command or during the execution of the movement, the base element moves in quick time and the other elements move in double time. If marching at the double time and no pace is indicated, the leading or base element takes quick time and the other elements continue in double time until they have completed the movement. If marching at the double time and quick time is indicated in the preparatory command or during the movement, all elements come to quick time and the movement is completed by halting the base element.

c. Column is formed to the front from line on the base element without change of pace or at the pace ordered. The other elements take the next slower pace, or halt, in units larger than a platoon, until they can take their places in column; in the platoon or squad the other elements mark time until the proper time to move to take their places in the column.

SECTION II

COMMANDS

11. Means of transmission.—a. Commands may be transmitted by any of the following methods:

- (1) Voice.
- (2) Visual signals.
- (3) The example of the leader (speed or gait and direction).

(4) Audible signals (whistle, trumpet, horn).

(5) Radio, telephone, telegraph.

(6) Messengers and staff officers.

(7) Combination of any of the preceding methods.

b. Whatever the method used, it is considered as equivalent to an oral command. The base unit, by the example of its march, formation, gait, pace, or speed, indicates the will of the leader.

12. **Kinds.**—There are two kinds of commands—preparatory commands, such as *Forward*, which indicate the movement or formation that is desired; and commands of execution, such as *MARCH*, *HALT*, or *ARMS*, which cause such movement to be executed. At times a single command is used which indicates both the movement and causes its execution, such as *RALLY* or *FOLLOW ME*. In this manual, commands of execution are written in capital letters to distinguish them from preparatory commands.

13. **Timing.**—A preparatory command should be given at such interval of time before the command of execution as will allow its being properly understood; the command of execution is given at the instant the movement is to commence. At dismounted drill, the preparatory command should precede the command of execution by two counts. Whenever the preparatory command must be repeated by subordinate unit commanders, the interval between commands is longer. At dismounted drill, this latter interval is four counts.

14. **Method of giving commands.**—Commands must be given in such a manner that they are readily understood by those for whom they are intended. The tone of the command should be animated, distinct, and of a loudness proportioned to the number of men affected. Preparatory commands are given with a rising inflection. Dismounted, the command of execution must be short and explosive; mounted, the command of execution is more prolonged. At a halt, a person giving an oral command or making a report habitually faces the unit to which the command is given or the person to whom the report is made. The staff of a commander giving commands or making reports does not conform to the temporary changes of front of the commander but maintains its position.

15. **To revoke commands.**—Preparatory commands may be revoked by commanding *As you were*.

SECTION III

SIGNALS

16. **Purpose and kinds.**—Drill and combat signals are for the purpose of transmitting commands when the transmission will be more simple and efficient than would be possible by use of the voice. Drill and combat signals may be by whistle or by arm and hand.

17. **Whistle signals.**—A short blast of the whistle is habitually used to attract the attention of subordinate leaders or troops prior to giving arm and hand signals. Whistle signals other than the two given below are prohibited.

a. Attention.—A short blast of the whistle.

b. Suspend firing.—A long blast of the whistle. This should be confirmed at once by the appropriate arm and hand signal or by other means.

18. **Arm and hand signals.**—*a. Method of giving signals.*—(1) Except when otherwise prescribed, arm and hand signals are normally given with the right arm and hand, though the left arm and hand may be used when necessary.

(2) Signals must be plainly visible to those concerned with their execution. To render any arm or hand signal more visible the saber, headdress, or handkerchief may be carried in the hand during the execution of the signal. The flashlight may also be used at night when secrecy is not essential.

(3) Whenever the command for any movement consists of a preparatory command and a command of execution, both a preparatory signal and a signal of execution will be used. Preparatory arm and hand signals are started from the position of the arm at the side. Signals of execution are started from the position of the arm at the vertical and fully extended except where specifically provided otherwise. Preparatory signals with the saber are started from the position of carry, the signal of execution by the return to the carry.

(4) Single signals are preferable to combinations of signals and should be used whenever possible. When a combination of signals is used, the signals should be easily recognized and given in the order in which the commands are worded; for example, the signal for *Line of troop columns* should be the

signal for *Line*, followed by the signal for *Troop*, followed by the signal for *Column*.

(5) In instruction involving firing by dismounted elements, subordinate leaders "repeat back" at once each signal received.

b. *Signals for horse and motor units*.—The following signals are prescribed for movement of horse units and motor units when applicable:

(1) *Action front (right, left, or rear)* (execution).—Thrust the closed fist several times in the direction toward which it is desired to go into action.

(2) *Are you ready? or I am ready* (execution).—Extend the arm toward the leader for whom the signal is intended, hand raised, fingers extended and joined, palm toward the leader.

(3) *As foragers* (preparatory).—Extend the arm horizontally to the front, palm down, and move it rapidly from left to right and from right to left in a horizontal plane.

(4) *Assemble* (preparatory).—Raise the hand vertically upward to the full extent of the arm, palm to the front, fingers extended and joined, then describe with the arm small horizontal circles slowly about the head.

(5) *As skirmishers* (preparatory).—Raise both arms laterally until horizontal, arms and hands extended, palms down. If it is necessary to indicate a direction of march, signal *Forward* and move at the same time in the desired direction.

(6) *Attention* (execution).—Extend the arm vertically to the full extent of the arm, palm to the front, and move the arm and hand slowly back and forth several times, from right to left and from left to right, in a vertical plane.

(7) *Bring up the led horses* (execution).—Same as *Prepare to mount*. (See (30) below.)

(8) *By the right (left) flank* (preparatory).—Extend the hand to the full extent of the arm horizontally directly to the right (left).

(9) *Change direction* (preparatory).—Extend the arm horizontally, with the palm down, fully in the direction of the marching flank and then make a wide sweeping movement with the arm in a horizontal plane toward the new direction and point in that direction.

(10) *Column* (preparatory).—Raise the arm vertically, then drop the arm to the rear and describe circles on the right in a

vertical plane with the arm fully extended. When not followed by a modifying signal, such as *Platoons, Squads, Troops*, or *Troopers*, column of fours is understood.

(11) *Column right (left); column half right (half left)* (preparatory).—Same as *Change direction*. (See (9) above.)

(12) *Decrease the gait* (preparatory).—Raise the right elbow to a position above and to the right of the right shoulder. Extend the forearm upward and to the left, right hand above the head. Except when the leader's example indicates otherwise, a decrease of gait of one degree is understood.

(13) *Disregard*.—Place the hand against the back at the height of the waist, back of the hand toward the body.

(14) *Fight on foot* (execution).—Strike three or four blows straight from the shoulder with the closed fist in the direction in which the action is desired.

(15) *Flock* (preparatory).—Extend the arm to the side horizontally, fingers extended and joined, and describe small vertical circles with the arm and hand.

(16) *Follow me* (execution).—Same as *Forward*. (See (1) below.)

(17) *Forward* (preparatory).—Raise the hand vertically to the full extent of the arm, palm to the front, and lower the hand and arm in the direction of movement until horizontal.

(18) *Fours* (preparatory).—Raise the hand vertically to the full extent of the arm, all fingers extended and separate, thumb closed in the palm of the hand.

(19) *Fours left about* (preparatory).—*Fours*, followed by *To the rear*. *Fours right about* is not executed by signal.

(20) *Fours right (left)* (preparatory).—*Fours*, followed by *By the right (left) flank*.

(21) *Halt* (preparatory).—Raise the hand vertically to the full extent of the arm. (Execution) Drop the arm to the side.

(22) *Increase the gait* (preparatory).—Carry the hand to the shoulder, then rapidly thrust the hand upward vertically to the full extent of the arm and back to the shoulder several times. Except when the leader's example indicates otherwise, an increase in gait of one degree is understood.

(23) *Lie down* (execution).—Turn toward the unit and raise the hand, palm down, in front of the elbow, forearm horizontal.

zontal. Thrust the hand downward and back to this position several times, holding the wrist rigid.

(24) **Line** (preparatory).—Raise the hand vertically to the full extent of the arm, fingers extended and joined, and wave the arm well down alternately to the right and left several times.

(25) **March** (execution).—Raise the hand vertically to the full extent of the arm, palm to the front, fingers extended and joined; make a very brief pause in this position and drop the arm smartly to the side.

(26) **Mass** (preparatory).—Extend the hand horizontally to the right, palm up, fingers extended and joined, and, by flexing the elbow, bring the tips of the fingers to the point of the shoulder several times.

(27) **Out of action** (execution).—Strike the closed fist of the right hand rapidly against the open palm of the left hand several times.

(28) **Platoons** (preparatory).—Raise the right elbow to the height of the shoulder, fist closed, forearm vertical.

(29) **Prepare to dismount** (preparatory).—Extend the arm diagonally upward to the right, palm downward, fingers extended and joined, and wave the arm downward several times.

(30) **Prepare to mount or pack** (preparatory).—Extend the hand horizontally to the right, palm up, fingers extended and joined, and wave the arm upward several times.

(31) **Prepare to rush** (preparatory).—Same as *Increase the gait*. (See (22) above.)

(32) **Quick time** (preparatory).—Same as *Decrease the gait*. (See (12) above.)

(33) **Rally** (execution).—Raise the hand vertically to the full extent of the arm, palm open, fingers extended and joined. Then describe with the arm large horizontal circles rapidly about the head.

(34) **Right (left) turn; right (left) half turn** (preparatory).—Same as *Change direction*. (See (9) above.)

(35) **Squads** (preparatory).—Raise the hand, palm to the left, fingers extended and joined vertically to the full extent of the arm and distinctly move the hand to the right and left several times from the wrist, holding the arm steady.

(36) **Sections** (preparatory).—Raise the hand to the full extent of the arm, fist closed.

(37) **Take cover** (execution).—Same as **Lie down**. (See (23) above.)

(38) **To the rear** (preparatory).—Turn and point to the rear, arm horizontal.

(39) **Troopers** (preparatory).—Raise the hand vertically to the full extent of the arm, first finger extended, other fingers closed in the palm of the hand.

(40) **Troops** (preparatory).—Place the palm of the hand against the back of the neck, back of the hand to the rear.

(41) **Twos** (preparatory).—Raise the hand vertically to the full extent of the arm, first two fingers extended and separated, other fingers closed in the palm of the hand.

c. Additional signals for motor vehicles.—The following signals are prescribed for motor propelled vehicles in addition to those contained in *b* above:

(1) **Back up**.—Extend hand and arm, palm toward driver, and make pushing motion.

(2) **Close up**.—Extend the arms horizontally sideward, palms up, and swing upward to the vertical position until the palms meet.

(3) **Extend**.—Extend the arms vertically overhead, palms outward, and swing them downward to a horizontal position.

(4) **Prepare for action**.—Simulate loading a machine gun as though working the bolt.

(5) **Start engine**.—Simulate cranking.

(6) **Stop engine**.—Cross forearms overhead.

d. Fire-control signals.—The following signals are prescribed for fire control:

(1) **Cease firing** (execution).—Raise the forearm as in **Suspend firing** ((5) below) and swing it up and down several times in front of the face.

(2) **Commence firing** (execution).—Extend the arm and hand horizontally in front of the body to their full extent, palm of the hand down, move the arm several times through a wide horizontal arc.

(3) **Fire faster** (execution).—Execute rapidly the signal **Commence firing** ((2) above).

(4) **Fire slower** (execution).—Execute slowly the signal **Commence firing** ((2) above).

(5) **Suspend firing** (execution).—Raise the forearm to a horizontal position in front of the forehead, palm of the hand to the front. Hold the forearm steady until the signal is understood.

(6) **Traversing fire** (execution).—Extend the arm to the front, palm to the left (right), and wave the hand up and down with a chopping motion, at the same time moving the arm and hand from right to left (left to right) as it is desired that the fire be distributed.

e. Signals for information of hostile troops.—The following signals are prescribed for transmitting information of hostile troops:

(1) **Enemy in sight in small numbers.**—Hold the weapon horizontally above the head with the arms extended as if guarding the head.

(2) **Enemy in sight in large numbers.**—Hold the weapon as described for **Enemy in sight in small numbers** ((1) above) and lower and raise it several times by flexing the arms at the elbow.

(3) **Hostile aircraft.**—Remove headdress and extend arm upward and pointing toward approaching aircraft.

(4) **Hostile mechanization.**—Remove headdress and wave through a vertical arc as in the signal for line.

SECTION IV

RIFLE SQUAD

19. **Organization.**—The rifle squad normally consists of a corporal and 7 privates. The privates include a second-in-command and two scouts.

20. **Squad leader.**—*a.* When the squad is acting alone or when for any other reason it becomes desirable, the leader takes position in front of his squad and designates a guide in the rank who follows the leader at 3 yards.

b. When a squad is in the platoon, the squad leader is in ranks and is normally the guide of the squad. If the execu-

tion of exceptional movements places the squad leader out his normal position he exercises command from his temporary position until his normal position is regained.

	<i>Officer, Mounted</i>
	<i>Officer, Dismounted</i>
	<i>N.C.O., Mounted</i>
	<i>N.C.O., Dismounted</i>
	<i>Mounted Man</i>
	<i>Dismounted Man</i>
	<i>Riderless Horse</i>
	<i>Pack Horse</i>
	<i>Messenger</i>
	<i>Messenger, dismounted</i>

FIGURE 1.—Symbols for figures on drill.

21. Formations.—The formations of the squad in close and extended order are—

a. Line.—Line is a close order formation in which all members of the squad are abreast of each other with an interval of 6 inches between knees when mounted and 4 inches between elbows dismounted.

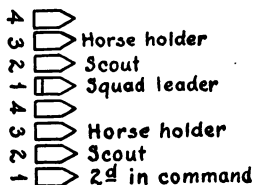


FIGURE 2.—Line.

b. Column of fours.—Column of fours is a close order formation in which the troopers in each set of fours are arranged as in line but one set of fours is directly in rear of the other. Normally, the corporal's set of fours is in front. The distance between sets of fours is 4 feet from head to croup when mounted and 92 inches between troopers when dismounted.

c. Column of twos.—Column of twos is a close order formation in which Nos. 1 and 2 of each set of fours are normally in front. The distances between sets of twos is 4 feet from head to croup when mounted and 40 inches between troopers when dismounted.

d. Column of troopers.—Column of troopers is a close order formation in which the troopers of each four are normally in the order 1, 2, 3, 4, from head to rear. The distance between troopers is 4 feet mounted and 14 inches dismounted.

e. Extension in depth.—Extension in depth is an extended order formation in which the fours, twos, or troopers follow one another at the distance indicated in the command.

f. Line of half-squad columns.—Line of half-squad columns is an extended order formation in which the sets of fours are abreast of each other with each four in column of troopers. Unless directed otherwise in the command, the interval between columns is 25 yards.

g. Flock.—Flock is an extended order formation in which the troopers are dispersed irregularly with intervals and distances of not less than 10 nor more than 20 yards between troopers. Those of the leader's four are to his left and rear, those of the other four to his right and rear.

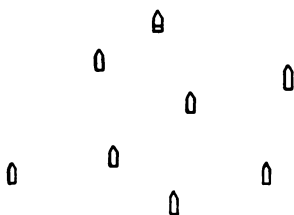


FIGURE 3.—Flock.

h. Foragers (or skirmishers).—Foragers or skirmishers is an extended order formation in which the troopers have the same relative positions as in line with increased intervals between troopers. The interval between foragers or skirmishers is 5 yards unless a different interval is specified in the command.

22. The guide.—In line formations the guide is habitually in center and the troopers regulate on the squad leader or other trooper designated as the guide. In column formations the

guide is habitually right. In approach formations the guide is on the squad leader.

23. Execution of movements.—*a.* In the squad, any formation in either close or extended order can be taken directly from any close order formation. Being in extended order, the squad must assemble or rally prior to executing movements in close order.

b. For tactical purposes, dismounted movements are executed by the same commands and methods as the corresponding mounted movements except where specifically provided otherwise.

24. To form the squad.—*a. Mounted.*—(1) To form the squad in line, the leader acts as the base of the formation and takes position where the center of the squad is to rest and facing in the required direction commands: **LEAD INTO LINE**

(*a*) The troopers lead out so as to approach the line *successively directly from the rear* and form in single rank on the leader, four troopers on his right and three on his left. The troopers form at stand to horse with intervals of 18 inches between horses. The line being thus formed, the leader verifies the presence of the men, or calls the roll, and commands **COUNT FOURS**.

(*b*) When there is an incomplete four, the leader cautions the troopers in it as to the numbers assigned them. The four to which the leader belongs is completed first and the other four becomes the incomplete four. If but five men all told remain in a squad, three men form a four with the leader and the fifth man acts as a four by himself or, if the squad is in the platoon, the fifth man is assigned to the line of file closer or to another squad by his platoon commander.

(2) The formation in column of fours, twos, or troopers is similarly executed. The leader commands: **LEAD INTO COLUMN OF FOURS (COLUMN OF TWOS, COLUMN OF TROOPERS)**. The leader is No. 1 of the leading four or smaller element. The elements of the column form in order from front to rear, with distances of 4 feet between successive fours, twos, or troopers. In column of fours or twos, each four or two forms on its right trooper.

(3) The squad may also form in similar manner after the troopers mount. In this case the leader causes the troopers to

mount individually after saddling and commands: **RIDE INTO LINE (COLUMN OF FOURS, COLUMN OF TWOS, COLUMN OF TROOPERS)**. The interval between mounted troopers is 6 inches from knee to knee.

b. Dismounted.—(1) The dismounted squad is formed on principles similar to those for the formation of the mounted squad. The leader commands: **FALL IN**. The troopers form as prescribed for dismounted drill. The leader verifies his squad and causes it to count fours. The interval between troopers is 4 inches.

(2) If armed with the rifle, the troopers fall in with rifles at the order. As soon as the line or column is formed the leader commands: 1. **Inspection**, 2. **ARMS**, 3. **Right shoulder**, 4. **ARMS**, and calls the roll. Each man, as his name is called, answers "Here," and executes **order arms**. If he can verify his squad without calling the roll the third and fourth commands are: 3. **Order**, 4. **ARMS**.

(3) The formation in column of fours, twos, or troopers is conducted in accordance with the modifications indicated. The command of the leader is: **FALL IN, IN COLUMN OF FOURS (COLUMN OF TWOS, COLUMN OF TROOPERS)**. The distance between successive fours is 92 inches; between successive twos, 40 inches; between successive troopers, 14 inches.

25. To mount.—The commands are: 1. **Prepare to mount**, 2. **MOUNT**.

a. Being in line, at the first command the odd numbers lead out four yards directly to the front then take the position of **prepare to mount**, and at the second command, mount in unison. To re-form the rank the command **Form rank** is given, at which the even numbers move up into the intervals and halt.

b. Being in column of fours or twos, at the first command the troopers open out fanwise from the center sufficiently to permit mounting without interference and all take the position of **prepare to mount**. At the second command all mount in unison and close to normal intervals without command. In column, the preparatory oral command may be omitted and the squad mounted by the command **Mount**.

26. To dismount.—The commands are: 1. **Prepare to dismount**, 2. **DISMOUNT**.

a. Being in line, at the first command the odd numbers ride 4 yards directly to the front and halt. All then take the position of **prepare to dismount**, and at the second command, dismount and take the position of **stand to horse**. To re-form the rank the command is: **FORM RANK**, at which the even numbers move up into the intervals and halt.

b. Being in column of fours or twos, at the first command the troopers open out fanwise from the center to permit dismounting without interference and all take the position of **prepare to dismount**. At the second command all dismount, but intervals are not closed. In column, the preparatory oral command may be omitted and the squad dismounted by the command **Dismount**.

27. **Alignments.**—a. When marching, troopers habitually align themselves on the guide, giving way to pressure from the side of the guide and resisting pressure from the side away from the guide. They glance occasionally toward the guide and keep their horses at an even gait, making adjustments of intervals and distances gradually and smoothly.

b. In coming to the halt, troopers habitually align themselves on the guide without command and look to the front as soon as alined. If necessary, the command **Dress** may be given.

c. In recruit instruction and for ceremonies the line may be accurately dressed by establishing the position of two troopers on a flank a little ahead of the line and commanding **Right dress**. Troopers then move up on the line in order from right to left at successive repetitions of the command **Next**, turning their heads and eyes to the right. When troopers have become proficient in alining themselves, the use of the command **Next** may be omitted. When all are properly alined, the command **Front** is given at which all troopers look to the front, resuming the position of attention.

28. **To fall out or dismiss the squad.**—a. At the command **Fall out**, the men break ranks and remain in the immediate vicinity or proceed to perform a specified duty.

b. At the command **Dismissed**, the men are released. If under arms, the arms are inspected prior to being dismissed.

29. **At ease, rest, and route order.**—a. At the command **At ease**, troopers are required to preserve silence and maintain their relative positions in ranks. They are permitted minor

informalities of movement but when mounted are not permitted to slouch in their saddles.

b. At the command **Rest**, the provisions of *a* above apply and in addition troops are allowed to talk.

c. The command **Route order**, given while marching, corresponds to **Rest** at the halt.

30. **Being at a halt, to march to the front.**—The commands are: 1. **Forward**, 2. **MARCH**. The squad moves forward, conforming to the march of the guide. To trot or gallop from the halt, the appropriate word is added to the first command. While marching, the squad changes the gait at the commands: 1. **Trot**, 2. **MARCH**; 1. **Gallop**, 2. **MARCH**; or 1. **Walk**, 2. **MARCH**.

31. **To halt.**—The commands are: 1. **Squad**, 2. **HALT**. All halt at the second command. The troopers, if not already alined, aline themselves without command on the guide as they halt. Movement in the rank then ceases. If marching at the trot or gallop, the gait is ordinarily decreased progressively, the halt being executed from the walk.

32. **To march backward.**—The commands are: 1. **Backward**, 2. **MARCH**. The squad reins back until the command: 1. **Squad**, 2. **HALT**. This movement is executed slowly and for short distances only.

33. **To oblique by troopers.**—The commands are: 1. **Troopers, right oblique**, 2. **MARCH**. The troopers execute individually a half turn to the right and then march at an angle of 45° to the original direction, each trooper's right knee in rear of the left knee of the trooper on his right. The squad moves in the new direction regulating on the right trooper, the front parallel to the original front. If in column, the right troopers regulate from head to rear. Halting the mounted squad while at the oblique should be avoided. If necessary to halt the squad thus, the troopers upon halting turn their horses to the original front. The original direction is resumed by similar means at the commands 1. **Forward**, 2. **MARCH**.

34. **To follow the corporal.**—Being assembled or deployed, to march the squad without unnecessary commands, the corporal, or leader, places himself in front of it, designates a guide and commands: **FOLLOW ME**. The guide follows the leader at about 3 yards; the other men conform to the move-

ments of the guide, maintaining their relative positions in the squad in any formation ordered by the leader.

35. Being in line to form column of fours.—The commands are: 1. *Column of fours*, 2. *MARCH*.

a. The leader's four moves straight to the front at the gait of march or the gait ordered. The other four makes a partial wheel decreasing the pace until the leading four has partially cleared when, by a movement approximating an oblique, it enters the column so as to follow in the trace of the leading four at 4 feet distance.

b. In executing the movement dismounted, the leader's four moves forward and the other four executes *Fours left, column right*, and follows the leading four at 92 inches. The leading four takes 4 short steps just after it clears the other four, then resumes the full step.

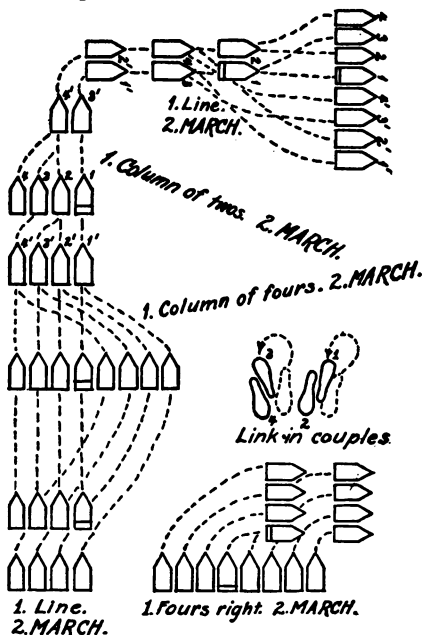


FIGURE 4.—Line, column of fours, column of twos, fours right, and link in couples.

36. Being in line, or in column of fours, to form column of twos or troopers.—The commands are: 1. *Column of twos (troopers)*, 2. *MARCH*.

a. (1) Nos. 1 and 2 of the base four move to the front at the gait of march or the gait ordered. Nos. 3 and 4 of that four keep their horses straight at the next slower gait until their horses' heads are passed by the croups of the horses of the right two, when they oblique to the right and follow the leading two at 4 feet distance. Nos. 1 and 2 of the other four move to the front in the same manner in time to take place in column and follow in the trace of the preceding two. Nos. 3 and 4 of the second four move forward in time to follow the right two of that four at 4 feet distance.

(2) *Column of troopers* is formed by similar methods from line, column of fours or column of twos.

b. (1) Dismounted, to form *column of twos*, the leader's four moves by twos in a manner similar to that described for the mounted movement. The other four executes a half wheel toward the leader's four and then breaks into column of twos in time to take proper place, following the preceding twos at 40 inches.

(2) *Column of troopers* is executed by similar principles. The distance between troopers in column of troopers dismounted is 14 inches.

37. Being in column of fours to form line.—The commands are: 1. *Line*, 2. *MARCH*. The leading four marches straight to the front at the gait of march or the gait ordered. The rear four obliques to the right (or left if the squad leader be in that four) by trooper at an increased gait. When opposite its place in line, it marches to the front and on arriving abreast of the leading four takes the gait of the guide.

38. Being in column of twos (or troopers) to form column of fours.—The commands are: 1. *Column of fours*, 2. *MARCH*. The leading two march straight to the front at the gait of march or the gait ordered. Nos. 3 and 4 oblique to the left until uncovered and then march up at an increased gait until abreast of Nos. 1 and 2. The twos of the succeeding four march forward at the increased gait and form fours as explained for the first four. The *column of troopers* forms *column of fours* by similar methods.

39. Being in column of twos (or troopers) to form line.—The commands are: 1. *Line*, 2. *MARCH*. The twos, or troopers, of the first four move up at an increased gait and form four as prescribed for forming fours. The elements of the second four likewise move up and form a four in its proper place on the line.

40. To wheel by fours.—The commands are: 1. *Fours right*, 2. *MARCH*.

a. The fours move simultaneously, each wheeling 90° to the right on a moving pivot. In each four the trooper on the marching flank moves at the gait of march or the ordered gait, and, while keeping touch toward the pivot, is the guide during the movement. The pivot trooper, conforming to the movement of the marching flank, turns his horse to the right on the arc of a circle with radius of 1 yard for all gaits except the gallop. At the gallop this radius is 3 yards. The other troopers keep touch toward the pivot while dressing on the marching flank. Upon completion of the wheel, all fours move forward at the ordered gait, dressing to the right, and maintain a distance of 4 feet between fours.

b. Dismounted, the movement is executed as in dismounted drill.

41. To wheel about by fours.—The commands are: 1. *Four right about*, 2. *MARCH*.

a. Each four wheels about 180° , and upon completion of the movement the fours move forward in the new direction dressing on the leader of the squad when in line or the guide of the four when in column.

b. Dismounted, the movement is executed as in dismounted drill.

42. Being in line to change direction.—a. To change direction 90° , the commands are: 1. *Right turn*, 2. *MARCH*. The leader turns on the arc of a circle so that the pivot trooper will turn on the arc of a circle with a radius of 2 yards at a walk, 4 yards at a trot, or 6 yards at a gallop, and moves at a rate which will permit the marching flank to preserve the alinement. Troopers remain closed and alined on the leader or guide if the leader is in front, increasing or diminishing their pace or gait accordingly. The leader indicates the direction to be taken on completion of the turn.

b. A partial change of direction is made without commands. The leader moves in the new direction and the troopers remain closed and alined on the guide. On completing the change the leader indicates the new direction.

c. Dismounted, changes of direction are executed as in dismounted drill.

43. Being in column, to change direction.—*a.* The commands are: 1. **Column right**, 2. **MARCH**. The leading element executes **right turn**, through a change of direction of 90°. The succeeding elements move forward and turn on the same ground as the leading element.

b. **Column half right** is similarly executed by a change of direction of 45°. **Column right about** is executed by a change of direction of 180°. To make a slight change of direction **incline to the right (left)**.

c. Being in line, to wheel by fours into column and change direction at the same time: 1. **Fours right**, 2. **Column right**, 3. **MARCH**.

44. To extend the squad in depth.—The commands are: 1. **Fours (twos, or troopers) at (so many) yards distance**, 2. **MARCH**. The leader may indicate the point where the squad is to be reassembled. The fours (twos, troopers) move out successively in the order prescribed for a column.

45. Being in any formation to form line of half-squad columns.—The commands are: 1. **Line of half-squad columns**, 2. **MARCH**. Each four forms column of troopers by the most direct method. The base four moves forward at the gait of march or the gait ordered and the other four moves by the shortest route at an increased gait to a position 25 yards to the right of the base four.

46. Being in any formation to form flock.—The commands are: 1. **Flock**, 2. **MARCH**. The leader moves forward at the gait of march or at the gait ordered. All troopers move at an increased gait and by the shortest route to their positions. The leader, from a position in advance of the center of the squad, leads and controls the flock.

47. Being in any formation to form as foragers.—*a.* The commands are: 1. **As foragers**, 2. **MARCH**. The guide moves forward at the gait of march or the gait ordered. The re-

maining troopers move at an increased gait by the most direct route to their proper positions abreast of the guide.

b. The commands for the similar movements dismounted are 1. *As skirmishers*, 2. **MARCH**. The guide moves forward in quick time and other troopers move to their places at a run.

c. The interval either mounted or dismounted is 5 yards unless specified otherwise in the command.

48. Being in line of half-squad columns, in flock, or as foragers.—The squad marches to the front, halts, changes gait and changes direction by the same commands prescribed for the squad in line.

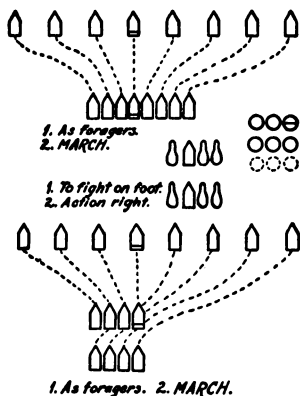


FIGURE 5.—As foragers and to fight on foot.

49. Being in line of half-squad columns, in flock, or as foragers, to march to a flank.—The commands are: 1. *By the right flank*, 2. **MARCH**. Each trooper turns 90° to the right and marches in the new direction. The line of foragers (or skirmishers) may be regained by again marching to the flank by corresponding commands and methods.

50. Being in line of half-squad columns, in flock, or as foragers, to march to the rear.—The commands are: 1. *Troopers right about*, 2. **MARCH**. Each trooper executes an about to the right. To march again to the front, the same command is given.

51. Being in line of half-squad columns, in flock, or as foragers, to assemble.—The commands are: 1. *Assemble*, 2. *MARCH*. The leader, faced in the desired direction, moves forward at the desired gait or halts. The other troopers close in upon the leader at an increased gait and form line in their normal positions. The assembly may be made in column by indicating the desired formation to the troopers as they start to assemble.

52. Being in any formation, or in disorder, to rally.—The command is: *RALLY*.

a. The leader takes position at any point or moves in any desired direction and at any gait that will permit the movement to be executed. The troopers ride rapidly toward the leader and form line in any order on his right and left. If the leader so desires, he places himself in front of his squad, designating a guide to follow him. The squad being rallied, counts four promptly.

b. Dismounted, the *rally* is always executed at a run.

53. To attack mounted.—The squad normally attacks in line of foragers but may attack in any formation. To launch the squad in an attack, the squad leader commands: 1. *As foragers (or other formation)*, 2. *Pistol attack*, 3. *FOLLOW ME*, and rides in the desired direction. The troopers come to raise pistol and gain the desired formation at the gallop, conforming to the movements of the squad leader.

54. To charge.—The command is: *CHARGE*. This command is usually given at a point about 60 yards from the objective after the leader has been absorbed in the rank in line formations. At the command *Charge*, troopers shorten their reins, lean well forward and ride at full speed toward the enemy. Each trooper selects a victim in his immediate front and bears down on him with his pistol extended at arm's length, withholding fire until within 25 yards. Any troopers who fall behind or whose fire is masked, take the position of raise pistol. On completion of the charge, the squad is rallied or assembled.

55. To fight on foot.—a. If in close order, the squad is normally formed in column of fours after which the commands are: 1. *Fight on foot*, 2. *ACTION RIGHT (LEFT)*.

(1) At the first command all the troopers open out as in *Prepare to dismount*, and Nos. 1, 2, and 4 dismount and take

their rifles from the boots; Nos. 2 and 4 pass their snaffle reins over their horses' heads, face about, give them to No. 3, who holds them at such length that he can best control the horse. No. 1 disengages the link snap, faces toward the rear, seizes the halter ring of No. 2's horse with his right hand, pulls his horse's head inward and with the left hand, back up, engages the snaffle in the halter ring; the reins of No. 1 and the curb bit reins of Nos. 2 and 4 should be placed behind the pommel and the left stirrup crossed over the reins in front of the pommel. In the absence of the link strap the horses may be fastened together by passing the snaffle reins through the halter ring and tying them in a slipknot so that the horses' heads will be about 2 feet apart.

(2) At the second command, the dismounted troopers of each four form facing to the front, in their normal order, 1 yard to the front of their horses' heads and 5 yards to the right (left) of the column of horses; the rear four closes in column to wheeling distance on the leading four.

b. If in extended order, each set of fours assembles on its horseholder before dismounting.

c. In emergencies, a dismounted line of skirmishers may be formed facing in any direction, without waiting for the normal column to be first formed, by the commands: 1. **Fight on foot** 2. **AS SKIRMISHERS TO THE RIGHT (LEFT, FRONT, REAR)**. In such case the leader, on dismounting, runs to the position where he desires the center of the line of skirmishers to rest and indicates by signals and voice the exact direction the line is to face; the troopers form as skirmishers on the right and left of the leader at intervals of 5 yards unless otherwise indicated.

d. One-half of the squad may be dismounted by the commands: 1. **Nos. 1 and 3 (or Nos. 2 and 4)**, 2. **DISMOUNT, 3. ACTION RIGHT (LEFT)**. The numbers dismounting pass the snaffle reins to those remaining mounted.

e. The led horses are disposed of in accordance with instructions.

56. To link in couples.—The squad being mounted in any formation, the leader commands: **LINK IN COUPLES**.

a. All halt, if marching, and the troopers open out if in column, or odd numbers ride forward if in line, as to dismount; each odd-numbered trooper then turns to the left about so as to face the trooper with whom he is to couple, No. 1 with No. 2, No. 3 with No. 4. All dismount, place the reins behind the pommel and the left stirrup over the reins in front of the pommel. The odd-numbered troopers lead their horses along the right side of the horses of the corresponding even-numbered troopers. Each trooper pulls the link back through the left snaffle ring. Each horse is secured by linking or by tying the snaffle reins, if there be no link strap, to the cantle ring of the saddle on the other horse.

b. A noncommissioned officer or trooper out of ranks or a trooper of an incomplete two fastens his horse to either horse of the nearest couple. A trooper is usually left in charge of the horses.

57. To leave horses immobile.—This may be accomplished by the following methods:

a. Horses may be linked in couples.

b. All horses of one squad may be linked in a circle and left to the care of one horseholder.

c. One horseholder may hold the reins of all the horses of the squad.

58. Being dismounted to fight on foot, to mount.—The leader assembles his squad and marches it to the vicinity of the led horses; or he has the led horses brought up to the squad. He may command: **STAND TO HORSE**. The troopers unlink and take the position of stand to horse and the squad may then be mounted when desired. If the leader commands **Mount**, the troopers move rapidly but quietly to their horses and, without noise or excitement, unlink and mount.

59. Being in any position dismounted to take the kneeling position.—The command is: **KNEEL**. Assume the kneeling firing position as in rifle marksmanship, except that the left forearm is across the left thigh; rifle remains in position of order, right hand grasping it above the lower band.

60. Being at a halt, quick time, double time, or running, to lie down.—The command is: **DOWN**. (See fig. 6.)

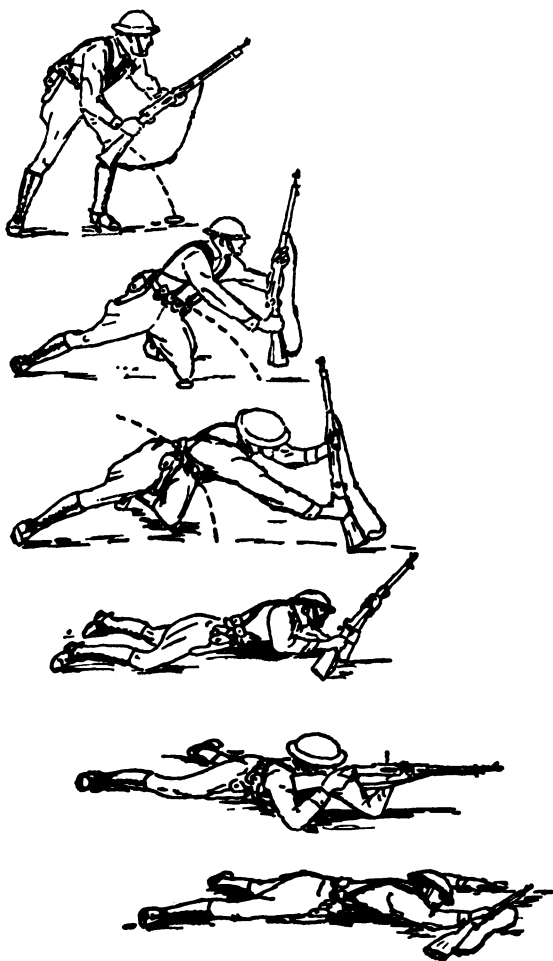


FIGURE 6.—To lie down.

a. Each trooper advances the left foot, turning it across the front of the body. He then drops forward on the outside of the left knee and at the same time extends the rifle, grasped in both hands and held vertically, so that the butt of the rifle strikes the ground at full arm's length in front of the left knee. Pivoting on the left knee and the butt of the rifle, he rolls forward into the firing position with the rifle at the shoulder, or into the prone position with the rifle on the ground to the front. In lying down, those required to fire or simulate firing drop to the firing position, others to the prone position.

b. When without the rifle, to assume the prone position advance the left foot as above. Extend the left arm over the head and roll forward on to the left knee, the left hip, and the left shoulder into the prone position. Care should be taken that the hands do not get under the body. The prone position is flat on the belly, left side of face on the ground, legs extended and apart, heels down, toes out, arms to the front and flat on the ground.

61. **Being dismounted to advance under fire.**—The squad advances by covered routes, by rushes, or by infiltration.

a. To advance by covered routes, the squad is conducted forward under cover at a suitable formation and rate of march.

b. To advance by rushes, the commands are: 1. **Cease firing**, 2. **Prepare to rush**, 3. **UP** or **FOLLOW ME**. (See fig. 7.) If in the firing position, troopers first take the prone position and all draw the arms in slowly until the hands are opposite the chin, elbows away from the body and down. Each then raises the body by straightening the arms. Placing the weight of the body on the left arm and leg and bringing the right leg forward, all jump off to the right front. When running, all bend as low as possible, keeping the left shoulder forward, grasping the rifle in both hands, left hand at the balance, right hand at the small of the stock.

c. To advance by infiltration, the commands are: 1. **On** (*such a line, crest, hedge, road, etc.*), 2. **RE-FORM**. The squad leader sends men forward singly or in pairs to the line designated. The squad leader recovers control of his squad at the designated position before attempting a further advance.

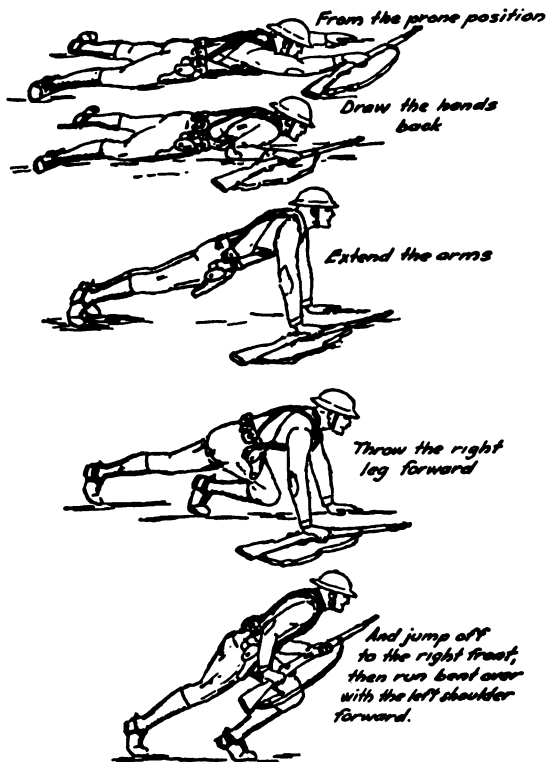


FIGURE 7.—If lying down, to move forward at a run.

SECTION V

RIFLE PLATOON

62. Organization.—The rifle platoon normally consists of three squads and a platoon headquarters consisting of the platoon leader (lieutenant), platoon sergeant, and two messengers.

63. Platoon headquarters.—*a.* The platoon leader regulates the direction and gait of march by leading the platoon. If for

any reason it is desirable for him to go elsewhere, he directs a subordinate to conduct the base.

b. In close order formations the posts of the platoon leader and platoon headquarters are prescribed under each formation.

c. In extended order formations and when marching at route order, the platoon leader normally accompanied by the platoon sergeant and two messengers is 3 yards in front of the guide of the base unit. Distance is measured from the rear of those accompanying the platoon leader to the leading element. The file-closer sergeant is 3 yards in rear of the center or rear element.

64. Formations.—The formations of the platoon in close and extended order are:

a. Line.—This is a close order formation in which the squads are in line and abreast of each other with the same interval between squads as between troopers. The platoon leader is normally 3 yards in front of the guide. The remainder of the platoon headquarters is evenly distributed from right to left in order of rank 3 yards in rear of the rank.

b. Column of fours, twos, troopers.—These are close order formations which correspond to the same formations in the squad. The squads are in column with the normal distance between all elements of 4 feet from head to croup. The platoon leader is normally 4 feet in front of the guide. The remainder of platoon headquarters follow the rear squad at 4 feet distance.

c. Extension in depth.—This is an extended order formation in which the squads follow one another at the distance prescribed in the command. The squads may be in any prescribed formation.

d. Lateral extensions.—These are extended order formations in which the squads are abreast of each other with intervals of 50 yards unless otherwise ordered. The squads may be in any prescribed formation. Variations of this formation may be effected by causing the base squad to change its formation; other squad leaders change the formation of their squads to conform to that of the base squad.

e. As foragers (or skirmishers).—This is an extended order formation in which the squads, each deployed as foragers or skirmishers, are abreast of each other with the same interval between squads as between troopers.

65. The guide.—When the platoon is in line in close order all troopers in the rank regulate on the guide of the platoon. In all line formations in extended order, the troopers in each squad regulate on their squad leaders who in turn regulate on the base. In column formations the guide is habitually right.

66. Execution of movements.—*a.* In the platoon any formation can be taken directly from any other.

b. Squad leaders conduct their squads, by the shortest and most direct route, to their positions in the new formation.

c. Column of fours, twos, or troopers is habitually formed on the base squad which moves forward first.

d. Line is habitually formed by a fan-shaped deployment on the leading element.

e. When line is to be formed in a direction oblique to the direction of movement, the head of the column is turned in the new direction before the deployment is ordered.

f. Where the change of direction is 90° or more and there is not time or room for changing the direction of march of the head of the column and executing a fan-shaped deployment, line may be formed by wheeling by fours.

g. When a platoon is marching in line and an obstacle is met that interferes with the advance of only a few troopers, they open out or fall back without command and resume their places after passing it. In the same way, if the obstacle is sufficiently large, a squad leader may hold his squad back to follow after the platoon, or he may lead his squad around the obstacle.

67. Squad movements applicable.—The platoon executes the following movements by the same commands and means as are prescribed for the squad, substituting the word "platoon" for "squad" when necessary:

Mounts, dismounts, and is alined.

Marches forward, backward, and to the oblique.

Executes changes of direction.

Wheels by fours.

Forms column of fours from column of twos or troopers.

Forms column of twos or troopers from column of fours.

Forms line of half-squad columns.

Changes gaits, halts, rests, and is dismissed.

Links in couples.

Advances by covered routes, by rushes, or by infiltration.

68. To form the platoon.—*a. Mounted.*—(1) Normally the platoon is formed in line. It may be formed in column if desired. Squads are formed as prescribed and in such a place and manner that they will be combined in the desired platoon formation in the order of their permanent designation or as indicated by the platoon sergeant. In garrison or whenever the stable or picket lines and horse equipment are at some distance from the barracks or camp of the men, the platoon is formed dismounted by the platoon sergeant and, after verification, is marched to the stables. If alone, it is marched by the platoon sergeant; if in the troop, the troop is marched by the first sergeant with the platoon sergeants in command of their platoons. When the platoon has reached the stables, the platoon sergeant commands: **SADDLE AND LEAD OUT**. The platoon is reformed as soon as the horses are saddled and led out of the stables.

(2) The platoon sergeant, mounted, facing the position where he wishes the platoon to form, commands: **FORM PLATOON**. The squad leader of the base squad stations himself at stand to horse, 6 yards from the platoon sergeant and facing him, and cautions his men, **Lead into line**. The other squad leaders similarly form their squads on the right and left of the base squad. All squads count fours.

(3) If the platoon sergeant desires the platoon to form in column, he commands: **FORM PLATOON IN COLUMN OF FOURS (TWOS, OR TROOPERS)**. The platoon forms column on the base squad. The other squads form in column behind the base squad.

(4) If the platoon sergeant desires to form in any special order he indicates the relative order after giving his command.

(5) If, after dividing the platoon into squads of 8 men each, there are less than 4 men and more than 1 man remaining over, they are all assigned to one squad as an additional and incomplete four. If 1 man remains over he is assigned as an extra file closer. If four or more men remain over another squad is formed according to the principles for forming squads as prescribed in section IV.

(6) If the permanent squad formation has been kept but there are absentees from more than one squad thus making

several incomplete fours, it is better to assign the men of the incomplete fours to fill vacancies in squads so as to leave not more than one incomplete four in the platoon. If there is but one man available for the incomplete four, he should be assigned as an extra file closer; but no more than one extra file closer should be permitted.

(7) After the squads have formed in the platoon, the squad leaders verify the presence of their men (if verification has not been previously made), and the platoon sergeant commands: **REPORT**. Each squad leader in turn, commencing on the right, salutes (except when at stand to horse) and reports, "(Such) squad present," or "(So-and-so) absent." If dismounted and armed with rifles, the squad leaders remain at the order arms while reporting. If no verification is required or if it has been previously made, the squad leaders do not report. After squads are formed and necessary adjustments made, the platoon sergeant faces about, salutes, and reports to the platoon leader, "Sir, the platoon is present or accounted for," or "Sir, (so-and-so) absent." He then takes his post at the trot (quick time if dismounted).

b. Dismounted.—The platoon is formed dismounted by the commands and methods prescribed for dismounted drill.

69. Being in line, to form column of fours, twos, or troopers.—The platoon leader places himself 3 yards in front of the guide of the base squad or indicates the base squad by voice and commands: 1. **Column of fours (twos, troopers)**, 2. **MARCH**. The base squad forms column of fours to the front and follows the platoon leader. Each of the other squads forms column of fours to the front in time to take its place in column by the shortest route, at the ordered gait of march, and without loss of distance. The order of the squads in column is as follows: Base squad, next squad on the left of base squad in line, next squad on the right of base squad in line.

70. Being in column of fours, twos, or troopers, to form line.—The commands are: 1. **Line**, 2. **MARCH**.

a. The leading squad forms line and follows the platoon leader, its guide or squad leader following in the trace of the platoon commander at 3 yards distance.

b. The second squad is conducted by its leader at an increased gait to the left front. It continues in its original forma-

tion until its leading element is about 3 yards in rear of the correct place in the platoon line, when it forms line to the front, the leading element reducing the gait gradually so as to avoid blocking the movements of the element next in rear and so as to have the gait of the base squad when it arrives abreast thereof. The rear elements continue at the increased gait until opposite their place in line when they gradually reduce the gait as explained for the leading element; the squad then conforms to the gait of the guide of the platoon and all troopers maintain their alinement upon him.

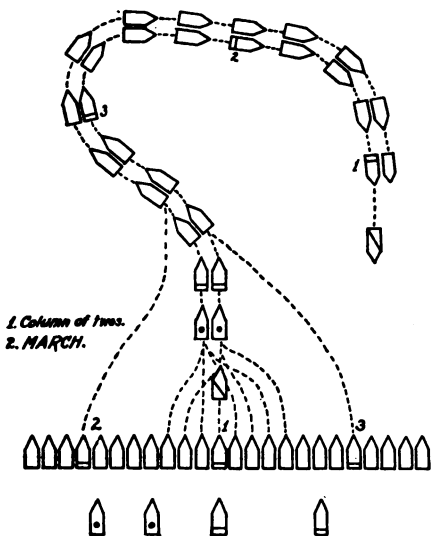


FIGURE 8.—Column of twos from line.

c. The third squad is similarly conducted to take its place on the line to the right of the leading squad.

71. To extend the platoon in depth.—Extension in depth is effected by the commands: 1. *Squads (fours, twos, or troopers)*, 2. *At (so many) yards distance*, 3. *MARCH*. The base squad moves out first, followed by the others in their proper order. If the platoon leader desires the elements to march in a particular formation he indicates his wishes after giving the

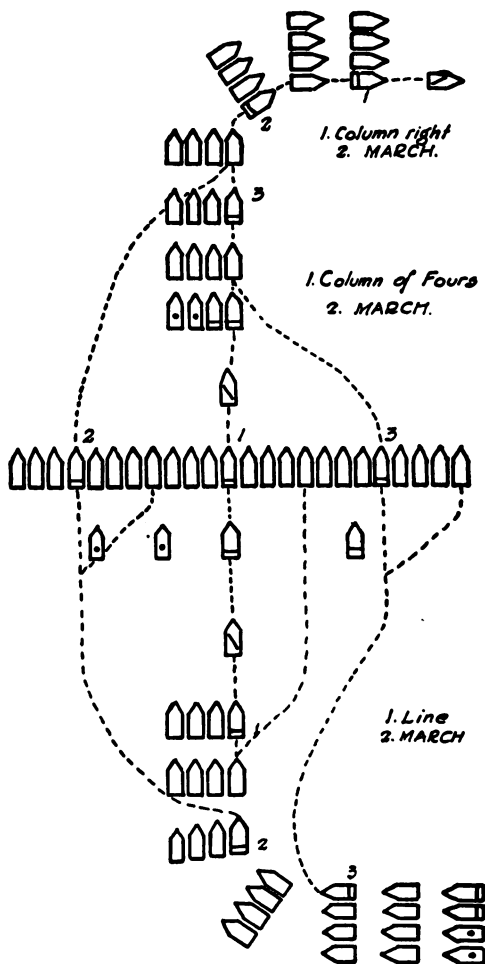


FIGURE 9.—Line, column of fours, and column right.

first command; for example, 1. *Squads in line (as forag*
2. *At (so many) yards distance,* 3. *MARCH.*

72. Being in any formation, to extend the platoon laterally.—The commands are: 1. *Line of squads, at (so many) yards*, 2. *MARCH*. The base squad follows the platoon leader. The other squads are conducted to their positions abreast of the base. The squads habitually take the formation of and regulate on the base squad but the squad leaders may change the formation of their squads to suit the ground in accordance with their own judgment. Troopers regulate on their own squad leader.

73. Being in any formation, to disperse by squads.—The command is: *DISPERSE BY SQUADS*. The squads are led in different directions at rapid gaits until they are at least 50 yards apart whereupon all halt and squad leaders direct appropriate dispositions according to the object in view.

74. To send scouts out.—The platoon leader indicates the direction or first objective and commands: *SCOUTS OUT*. The scouts move out in the direction indicated at an increased gait. If the platoon is dismounted at a halt, they move in quick time.

75. Being in any formation, to form as foragers (skirmishers).—The commands are: 1. *As foragers (skirmishers)*, 2. *MARCH*.

a. When mounted, the base squad follows the platoon leader and the squad leader deploys it as soon as there is sufficient room. The leaders of the other squads conduct them at an increased gait to left and right front to gain the interval necessary to permit their deployment. Upon arriving opposite their positions in the line of foragers and after changing direction so as to march to the front, the squads are deployed at the discretion of the squad leaders and move up abreast of the base squad. Troopers regulate their march on their own squad leaders. The leaders of squads other than the base regulate on the base squad.

b. When dismounted, the movement is executed in a similar manner, squads other than the base moving at the double time.

76. To march to the rear.—*a.* If the platoon is in line, it executes a turn of 180° to the left.

b. If the platoon is in column of fours, twos, or troopers, it executes *column left about*.

c. If the platoon is in a line of columns the platoon leader causes each column to execute *column left about* or if as foragers to execute *troopers left about*.

77. To change formation quickly or to bring order out of confusion.—The platoon leader rides in the desired direction and commands: 1. (*Such*) *formation*, 2. *FOLLOW ME*. If the squads are not in the desired formation, each squad leader commands: 1. (*Such*) *squad*, (*such*) *formation*, 2. *FOLLOW ME*. The squad leaders move toward the platoon leader, the squads assembling rapidly on their squad leaders during the movement. The squad first arriving near the platoon leader becomes the base of the new formation.

78. Being in any formation or in disorder, to rally.—a. The platoon leader commands: *RALLY*, and moves slowly forward.

b. If in disorder all troopers ride at a rapid gait toward the platoon leader and form behind him in line in any order.

c. If in a formation in which the troopers are already grouped in squads, they rally while remaining in such groups, even though the individual troopers may form in any relative order in their squads.

d. The platoon having rallied, the platoon leader, at the first suitable opportunity, causes fours to be counted or the platoon to be assembled in normal order.

79. To charge.—In the platoon, charges are executed by the same commands and methods as prescribed for the squad except that the squad leaders are in the rank and, at the command *Charge*, the leader of the base squad moves up on the left of the platoon leader. The platoon leaders and messengers are absorbed in the rank.

80. To fight on foot.—The commands are: 1. *Fight on foot*, 2. *ACTION RIGHT (LEFT)*.

a. The platoon leader turns over his horse to the file closer sergeant, announces the disposition or formation desired, and directs the disposition of the led horses.

b. Each squad executes *to fight on foot* as prescribed for the squad. The squad leaders dispose their squads as indicated by the platoon leader.

c. Individuals out of ranks secure their horses to a nearby four, preferably an incomplete set. The messengers join the

platoon leader and the platoon sergeant directs the squad leaders to their positions. The file-closer sergeant takes charge of the led horses.

81. To leave horses immobile.—This may be accomplished by linking in couples, linking in a circle by squad or platoon, or having a horseholder in each squad hold the horses of his squad. In any case, the file-closer sergeant or a designated trooper is left in charge.

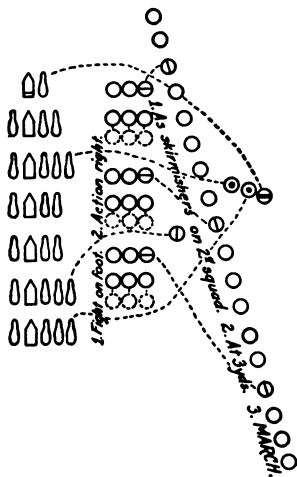


FIGURE 10.—To fight on foot and form as skirmishers.

82. To mount the platoon.—The platoon may be mounted by having the led horses brought forward, moving the dismounted men toward the horses, or both. When the horses have been left immobile, the platoon must return to the location of the horses. To have the led horses brought forward, the platoon leader signals or sends word. The led horses are brought forward to the vicinity of their squads. The platoon leader then gives the command: *STAND TO HORSE*; 1. *Prepare to mount*, 2. *MOUNT*; or *MOUNT*.

83. To dismiss the platoon.—The platoon is dismissed by the platoon sergeant on instructions from the platoon leader in the same general manner as prescribed for the squad.

SECTION VI

LIGHT MACHINE-GUN SQUAD

84. Organization.—The light machine-gun (LMG) squad consists of seven privates and a corporal who is the squad leader. It is organized into two gun crews, each consisting of a gunner, assistant gunner, and horseholder. The horseholder leads the gun pack horse carrying the gun and tripod, spare parts chest, and ammunition. In addition, one horseholder leads a squad ammunition pack horse.

85. Formations.—The formations of the light machine-gun squad are—

a. Column of fours.—This is a close order formation in which the ammunition horseholder is on the right of the squad leader. Gunners Nos. 1 and 2 form in column in that order in rear of the squad leader at 4 feet distance. The horseholder of each gun crew is on the right of the gunner and the assistant gunner on the left, with intervals of 6 inches. (See fig. 11.)

b. Column of twos (troopers).—These are close order formations. In column of twos, the squad is in rear of the squad leader in the order: Ammunition pack, gun crew No. 1, gun crew No. 2. In each crew the gun pack is in front, followed by the gunner and assistant gunner, the latter on the left. In column of troopers the formation is the same except that the assistant gunners are in rear of the gunners.

c. Line of half squad columns.—This is an extended order formation in which the ammunition horseholder is 3 yards in rear of the squad leader. Each gun crew is in column of troopers in the order: gunner, horseholder, assistant gunner; gunner No. 1 being 10 yards to the left and gunner No. 2, 10 yards to the right of the ammunition horseholder unless a different interval is indicated in the command.

d. Extension in depth.—This is an extended order formation in which the elements, half squads, twos, or troopers, are in rear of each other at the distance specified in the command.

e. Flock.—This is an extended order formation in which gun crew No. 1 is to the left and rear and gun crew No. 2 to the right and rear of the squad leader, with the horseholder

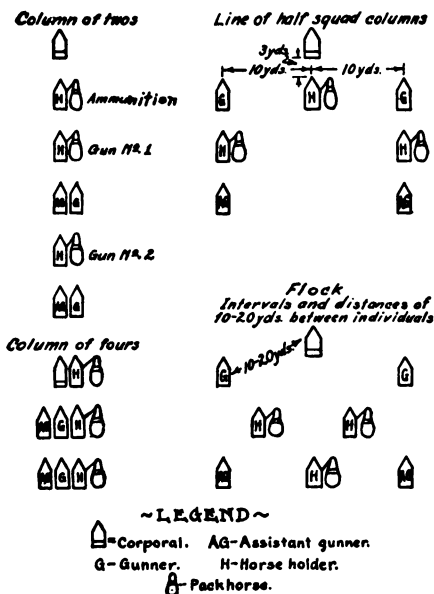


FIGURE 11.—Column of fours, column of twos, line of half squad columns, and flock.

of the ammunition pack in rear of the corporal with intervals and distances of 10 to 20 yards between all troopers.

f. As foragers.—This is an extended order formation in which gun crew No. 1 is on the left of the squad leader and gun crew No. 2 on the right of the squad leader, the gunner of each crew being on the right. Horseholders and pack horses follow about 10 yards in rear of their crews, the horseholder of the ammunition pack in the center.

86. To saddle, harness, and pack.—*a.* The squad leader commands: **SADDLE** and, if necessary, indicates the disposition of the riding horses while the pack horses are being harnessed and packed. The troopers saddle and bridle their riding horses.

b. If led horses are to be harnessed, the squad leader then commands: **HARNESS**. At this command the members of the squad working in pairs harness the pack horses.

c. If loads are to be carried the squad leader commands: **PACK**. At this command the horseholders place the loads on the ammunition pack and each gun crew places the loads on its pack horse.

d. When the loads are secured the troopers obtain their riding horses and each horseholder his pack horse.

e. When desired the commands **Saddle, Harness, and Pack** can be given as one command.

87. To unsaddle, unharness, and unpack.—The commands are: **UNPACK, UNHARNESS, and UNSADDLE**. They may be given separately or in conjunction as desired. In the execution of these commands the troopers reverse the procedure prescribed in paragraph 86.

88. To form the light machine-gun squad.—The light machine-gun squad is formed by the same commands and on the same principles as the rifle squad. The squad is normally formed in column of fours.

89. Rifle squad movements applicable.—The light machine-gun squad executes the following movements by the same commands and by corresponding methods employed in the rifle squad:

Mounts, dismounts, rests, and is dismissed.

Moves forward, obliques, changes gaits, and halts.

Changes direction and wheel's by fours (exceptional).

Is extended in depth.

Forms flock, as foragers, and assembles.

90. Being in column of fours, to form column of twos or troopers.—The commands are: 1. **Column of twos (troopers)**. 2. **MARCH**. The movement is executed as in the rifle squad except that at the preparatory command the squad leader places himself in front of the horseholder of the ammunition pack. Column of troopers is formed by similar methods.

91. Being in column of twos or troopers, to form column of fours.—The commands are: 1. **Column of fours**, 2. **MARCH**. The movement is executed as in the rifle squad except that at the command of execution the horseholder of the ammunition pack moves up on the right of the corporal. Column of twos from column of troopers is formed by similar methods.

92. Being in any formation to form line of half-squad columns.—The commands are: 1. **Line of half-squad columns**.

MARCH. The squad leader, followed by the horseholder of the ammunition pack, moves straight to the front at the gait of march or the gait ordered. The gunner of each crew places himself in front of his horseholder and leads his crew at an increased gait to its position abreast of and 10 yards from the horseholder of the ammunition pack.

93. To fight on foot.—The commands are: 1. *Fight on foot, ACTION RIGHT (LEFT).*

a. At the first command, if not assembled by fours, each crew assembles as a four on its horseholder and all dismount except the horseholders. The squad leader places his curb reins in rear of the pommel, crosses the left stirrup in front of the pommel, and passes his snaffle reins to the ammunition horseholder. Each gunner turns his horse over to his horseholder in a similar manner. Each assistant gunner, after placing both reins in rear of the pommel and crossing the left stirrup in front of the pommel, secures his horse to the halter ring of the gunner's horse by the link strap. Each gunner unpacks the tripod and one chest of ammunition. Each assistant gunner unpacks the gun and one chest of ammunition.

b. At the second command, each crew runs to a position 1 yard in front of its horses' heads and 5 yards to the flank indicated in the order, and forms facing to the front, the gunner on the right. The squad leader indicates the disposition of the dismounted horses and assembles his squad in a suitable formation or indicates the employment of the guns.

c. In emergencies, the commands may be combined and given as one command. In this case on dismounting, the squad leader runs to the position where the squad is to assemble and indicates by signal and voice the employment of the guns. The gun crews move rapidly to the positions indicated by the squad leader.

94. To link in couples.—Being in any formation, the command is: *LINK IN COUPLES.* All halt and dismount. The gunner and assistant gunner of each crew link their horses as prescribed for the rifle squad and remove the load from their pack horse. Each horseholder links his riding horse to his pack horse with their right sides adjacent. The squad leader and the horseholder of the ammunition pack link horses and the ammunition pack horse is linked to one of these horses.

95. To leave horses immobile.—This may be accomplished by linking in couples, linking in a circle, or turning all the horses over to a designated trooper. Normally, the horseholder of the ammunition pack remains with the led horses.

96. To go out of action.—The command is: **OUT OF ACTION**. Each gunner clears gun and closes the cover. Each assistant gunner replaces the belt in the ammunition chest. The gunner and the assistant gunner of each crew then dismount the gun.

97. To put guns in packs.—The guns having been taken out of action and the led horses being at hand, the squad leader commands: **PACK**. At this command the gunners and assistant gunners place the tripod, gun, and ammunition chests in the hangers and secure the fastenings. As soon as the fastenings are secured, each trooper obtains his horse and takes the position of stand to horse.

SECTION VII

LIGHT MACHINE-GUN PLATOON

98. Organization.—The light machine-gun (LMG) platoon normally consists of three light machine-gun (LMG) squads and a platoon headquarters consisting of the platoon leader (lieutenant), a platoon sergeant, and two messengers.

99. Platoon headquarters.—*a.* The platoon leader regulates the gait and direction of march by leading the platoon. If for any reason it is desirable for him to go elsewhere, he directs a subordinate to lead the base.

b. In close order formations the positions of the platoon leader and platoon headquarters are prescribed in the paragraph describing that formation.

c. In extended order formations and when marching in route order, the platoon leader followed by the two messengers is 3 yards in front of the guide of the base unit. Distance is measured from the rear of those accompanying the platoon leader to the leading element. The platoon sergeant is 3 yards in rear of the center or rear element.

100. Formations.—The formations of the platoon in close and extended order are—

a. Line.—This is a close order formation in which the light machine-gun squads, in column of fours, are abreast of each other with intervals of 10 yards between squads. The platoon leader is normally 4 feet in front of the squad leader of the base squad. The platoon sergeant follows the center squad at 3 yards distance and similarly the messengers follow the other squads.

b. Column of fours, twos, troopers.—These are close order formations which correspond to the same formations in the squad. The light machine-gun squads form one behind the other at the normal distance of 4 feet between horses. The platoon leader is normally 4 feet in front of the guide. The remainder of platoon headquarters follows the rear element at 4 feet distance.

c. Extensions in depth.—These are extended order formations in which the light machine-gun squads follow one another at distances prescribed in the command. They may be in any authorized light machine-gun squad formation.

d. Lateral extensions.—These are extended order formations in which the light machine-gun squads are abreast of each other with intervals of 50 yards unless otherwise ordered. The light machine-gun squads may be in any prescribed formation. Variations may be effected by causing the base squad to change its formation, the other squad leaders changing the formation of their squads to conform to the base.

e. Foragers (skirmishers).—This is an extended order formation in which the light machine-gun squads, deployed as foragers (skirmishers), are abreast with 5 yards interval between squads.

101. The guide.—The base squad follows the platoon leader. The leaders of squads other than the base regulate on the base squad. The troopers in each squad regulate on their squad leader.

102. Execution of movements.—*a.* In the platoon, any formation can be taken directly from any other.

b. Squad leaders conduct their squads by the most direct route to their positions in the new formation.

c. Column of fours, twos, or troopers is habitually formed on the base squad, which moves forward first.

d. Line is habitually formed by a fan-shaped deployment on the leading element.

e. When line is formed in a direction oblique to the direction of movement, the head of the column is turned in the new direction before the deployment is ordered.

f. When marching in line and an obstacle interferes with the advance of a squad, its leader conducts it around the obstacle and resumes his place in the platoon formation without command.

103. Squad movements applicable.—The light machine-gun platoon executes the following movements by the same commands and in the same manner as the light machine-gun squad, with the substitution of the word "platoon" where necessary:

Saddles, harnesses, and packs.

Mounts, dismounts, and is alined.

Marches forward and backward.

Changes gaits, halts, rests, and is dismissed.

Executes changes of direction.

Links in couples.

Advances by covered routes, rushes, or infiltration.

Goes out of action and puts guns in pack.

104. To form the light machine-gun platoon.—*a. Mounted.*—

(1) The light machine-gun platoon is formed normally in line. It may be formed in column if desired. Squads are formed as prescribed and in such place and manner that they will be combined in the desired platoon formation.

(2) In garrison or whenever the stable or picket lines and horse equipment are at some distance from the barracks or camp of the men, the platoon is formed dismounted by the platoon sergeant and, after verification, is marched to the stables. If alone, it is marched by the platoon sergeant; if in the troop, the troop is marched by the first sergeant with the platoon sergeants in command of their platoons.

(3) When the platoon has reached the stables, the platoon sergeant commands: **SADDLE, HARNESS, PACK, AND LEAD OUT.** The platoon is re-formed as soon as the horses are saddled and led out of the stables.

(4) The platoon sergeant, mounted, facing the position where he wishes the platoon to form, commands: **FORM PLATOON.** The squad leader of the base squad stations himself at stand to horse, 6 yards from the platoon sergeant and facing him, and cautions his men to **Lead into column.** The other squad

leaders similarly form their squads on the right and left of the base squad.

(5) If the platoon sergeant desires to form in column, he commands: **FORM PLATOON IN COLUMN OF FOURS TWOS, or TROOPERS**). The platoon forms column on the base squad. The other squads form in column behind the base squad.

(6) If the platoon sergeant desires to form in any special order he indicates the relative order after giving his command.

(7) Absentees in the light machine-gun platoon are replaced by troopers from the rifle platoons. If the number of troopers required to fill the light machine-gun platoon would seriously deplete the rifle platoons, one or more guns may be rendered temporarily inactive.

(8) After the squads have formed in the platoon, the squad leaders verify the presence of their men (if verification has not been previously made), and the platoon sergeant commands: **REPORT**. Each squad leader in turn, commencing on the right, salutes (except when at stand to horse) and reports, "(Such) squad present," or "(So-and-so) absent." If dismounted and armed with rifles, the squad leaders remain at the order arms while reporting. If no verification is required or if it has been previously made, the squad leaders do not report. After squads are formed and necessary adjustments made, the platoon sergeant faces about, salutes, and reports to the platoon commander, "Sir, the platoon is present or accounted for," or "Sir, (so-and-so) absent." He then takes his post at the trot (quick time if dismounted).

b. Dismounted.—The platoon is formed dismounted by the commands and methods prescribed for foot drill.

105. Being in any formation, to form line.—The commands are: 1. **Line**, 2. **MARCH**. The base squad forms column of fours and follows the platoon leader at 3 yards distance. The remaining squads are conducted by their leaders in their positions on the right and left of the base squad where they form a column of fours if not already in that formation.

106. Being in any formation, to form column of fours, twos, troopers.—The commands are: 1. **Column of fours (twos, troopers)**, 2. **MARCH**. The base squad executes the movement in the manner prescribed for the squad and follows the platoon

leader. The remaining squads are conducted by their leader to the most suitable location for them to execute the movement and then take their places in column.

107. Being in any formation, to extend the platoon depth.—The commands are: 1. *Squads (fours, twos, troopers)* 2. *At (so many) yards distance*, 3. *MARCH*. The base squad moves out first, followed by the others in their proper order. If the platoon leader desires the elements to march in a particular formation, he indicates it in the command; for example, 1. *Squads in flock (as foragers)*, 2. *At (so many) yards distance*, 3. *MARCH*.

108. Being in any formation, to extend the platoon laterally.—The commands are: 1. *Line of squads at (so many) yards*, 2. *MARCH*. The base squad follows the platoon leader. The other squads are conducted to their positions abreast the base. The squads habitually take the formation of the base squad, but the squad leaders may change the formation of the squads to suit the ground in accordance with their own judgment.

109. To march to the rear.—When the troop is in close order, the light machine-gun platoon executes the movements the same way as do the rifle platoons. But when the troop is in extended order as foragers, the light machine-gun platoon should be in such a formation and with such intervals as will permit it to execute *squads (or half squads) column left about* or *troopers left about*, according to its formation. When the troop marches to the rear, if the light machine-gun platoon finds itself leading the troop, it continues there until ordered elsewhere.

110. Being in any formation, to disperse by squads.—The command is: *DISPERSE BY SQUADS*. The squads are led in different directions at rapid gaits until they are at least 50 yards apart, whereupon all halt and squad leaders direct appropriate dispositions according to the object in view.

111. To fight on foot.—The commands are: 1. *Fight on foot* 2. *ACTION RIGHT (LEFT)*.

a. The squads execute the commands as prescribed for the light machine-gun squad. The platoon sergeant takes the horses of the platoon leader and the messengers and takes charge of the led horses. The platoon leader indicates the

formation or employment of the platoon and the disposition of the led horses.

b. In emergencies the commands may be combined and given as one command. In this case, on dismounting, the platoon leader indicates the employment of the squads to the squad leaders. The squads execute the command as prescribed in the light machine-gun squad.

112. To leave horses immobile.—This may be accomplished by linking in a circle by squad or platoon or having a horseholder in each squad hold the horses of his squad. The platoon sergeant or a designated trooper is left in charge.

SECTION VIII

RIFLE TROOP

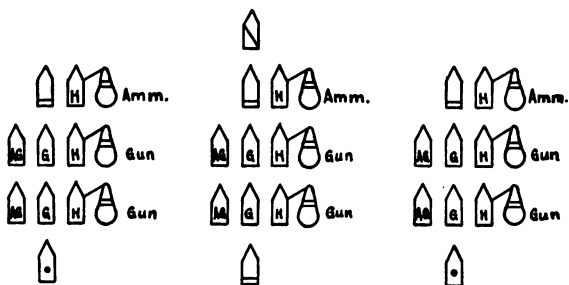
113. Organization.—a. The rifle troop consists of 3 rifle (R) platoons, 1 light machine-gun (LMG) platoon, and a troop headquarters.

b. For administration purposes rifle platoons have permanent designations of first platoon, second platoon, etc., which have no connection with their temporary designations according to their positions when in line as right, center, or left platoon; or when in column as leading, center, or rear platoon.

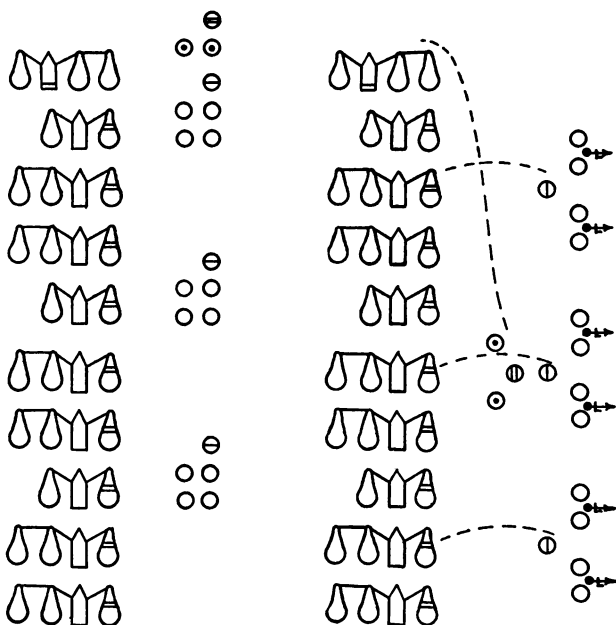
114. Troop headquarters.—a. Troop commander.—The troop commander normally leads the troop from a position 6 yards in front of the leader of the base platoon. He may go wherever his presence is necessary or desirable, directing a subordinate to lead the troop.

b. First sergeant.—The first sergeant accompanies the troop commander except at ceremonies or when posted elsewhere. At ceremonies he is on the right of the file-closer sergeant of the base platoon, in line; or at the right of the line of file closers of the rear platoon, in column. At other times he may be posted at the discretion of the troop commander.

c. Guidon.—The guidon is normally carried by the stable sergeant who follows the troop commander at 4 feet distance except at ceremonies or when in charge of the led horses. At ceremonies he is posted on the right of the leading platoon. When the troop fights on foot he is in charge of the led horses.



L M G Platoon in Line.



1. Fight on foot.
2. ACTION RIGHT.

Emergency employment of
the LMG Platoon.

FIGURE 12.—Line, to fight on foot, and emergency employment.

d. Buglers.—One bugler habitually accompanies the troop commander, riding on the left of the guidon. The other bugler, if not required as a messenger at squadron headquarters, may be placed with the remainder of troop headquarters or as directed by the troop commander.

e. Remainder of troop headquarters.—The remaining members of troop headquarters present, under the senior noncommissioned officer, are formed into a detachment corresponding to the formation of the light machine-gun platoon. Unless directed otherwise, this detachment maneuvers as an extra squad of the light machine-gun platoon. In emergencies or for instructional purposes, members of troop headquarters not leading horses may be placed in a separate squad or attached to platoons to fill vacancies.

115. Formations.—The formations of the rifle troop in close and extended order are—

a. Line.—Line is a close order formation in which each platoon is in line. The rifle platoons are abreast of each other with an interval of 3 yards between platoons. The light machine-gun platoon is in rear of the base rifle platoon at a distance of 6 yards.

b. Line of platoon columns.—This is a close order formation in which the rifle platoons are in column of fours and abreast of each other with intervals sufficient for the troop to deploy into line in the direction of march. The light machine-gun platoon is in column of fours in rear of the base rifle platoon at a distance of 3 yards from the rear element of that platoon to the leader of the light machine-gun platoon.

c. Column of platoons.—This is a close order formation in which each platoon is in line, one behind another, with distances equal to platoon front, the light machine-gun platoon in the rear.

d. Column of fours (twos, or troopers).—This is a close order formation in which each platoon is in the corresponding formation with distances of 3 yards from the rear element of one platoon to the leader of the platoon in rear.

e. Extensions in frontage and depth.—These are extended order formations in which the platoons are arranged with intervals or distances, or both, suitable to the situation and the terrain. The platoons may be in any prescribed platoon forma-

tion, those other than the base normally conforming to the formation of the base platoon. The light machine-gun platoon is normally in rear.

116. Execution of movements.—*a.* The troop executes the movements of the platoon or squad which are obviously applicable by the same commands, substituting where necessary the word "troop" for "platoon." The troop commander may cause the platoons individually to execute a movement not otherwise provided for by prefixing the word "platoons" to the command.

b. Any formation can be taken directly from any other.

c. In assuming column formations from line formations the movement is initiated by the base platoon, usually the center or right center platoon. The troop commander may designate any platoon as the base by placing himself in front of its leader.

d. Line formations are habitually assumed from column formations by a fan-shaped deployment, the head of the column moving in the direction the line is to face. Normally the troop does not march in line.

e. When necessary, line may be formed to a flank from column of fours or column or fours from line by wheeling by fours. These movements are exceptional and do not terminate with the correct interval or distances which must be gained gradually.

f. The platoon is the largest unit that has an extended order drill by fixed commands. For the troop or larger bodies, extended order movements are executed by orders of the commander given under real or assumed tactical situations. These movements must conform to the terrain as it actually exists and to the tactical situation.

117. To form the troop.—The troop is formed normally in line, but may be formed in any formation indicated in the command.

a. To form dismounted at the barracks, the first sergeant commands: **FORM TROOP.** Each of the platoon sergeants forms his platoon on its parade ground as prescribed for the platoon and in its relative position according to its permanent numerical designation. After verification of the platoons, the first sergeant places himself 6 yards in front of the platoon sergeant of the platoon selected as the base. The other platoons,

if not already alined without interval on the base platoon, are dressed up on it. The first sergeant then commands: **REPORT**. Each platoon sergeant in turn, beginning on the right, reports as prescribed for the rifle platoon in section V. The first sergeant returns the salute of each platoon sergeant.

b. The first sergeant then marches the troop in column to the vicinity of the horses and, having reached the proper place, commands: **SADDLE AND FORM PLATOONS**. The platoon sergeants cause their men to saddle and lead out. They then form their platoons in the most convenient places without interfering with each other. Where little space is available the platoon sergeants form their platoons practically in their positions in the troop, so that no further movement is necessary to form the troop. Unless a previous verification has been made, the platoon sergeants verify their platoons. Even though a previous roll call has been made, each platoon sergeant looks over his squads to assure himself that all his men are again present or accounted for.

c. The platoons being formed, the first sergeant takes post, mounted, facing the position where he wishes the base platoon to form and commands: **FORM TROOP**. The platoons take position, mounted, in line or in column, as directed by the first sergeant, in the order of their permanent designation, the base platoon being formed with its rank 9 yards from the first sergeant. If, on account of the proximity of the stables or picket lines, the previous dismounted formation is not necessary, the first sergeant commands: **SADDLE AND FORM PLATOONS**. The troop is then formed as described above.

d. As soon as the platoons are in their proper positions in the troop the first sergeant commands: **REPORT**. The platoon sergeants, in order from right to left or head to rear, salute and report, "(Such) platoon is formed," or, in case no previous verification has taken place, "(Such) platoon present or accounted for," or "(Such) platoon, (so-and-so) absent." After reporting, each platoon sergeant goes at the trot to his post. The first sergeant turns about and, saluting, reports, "Sir, the troop is formed," or "Sir, the troop is present or accounted for," or "Sir, (so-and-so) absent." When the troop commander acknowledges the salute the first sergeant goes at the trot to his position.

e. The platoon leaders then take their posts in front of their platoons. The platoon leaders should inspect their platoons while they are being formed and satisfy themselves that the horses are properly saddled and that the equipments are clean and properly placed. The troop commander may require the platoon leaders to inspect arms before the platoons are mounted.

f. The troop commander may require the platoons to remain dismounted after forming platoons without forming troop until the proper time to march out, thus forming troop in column as they march out and dispensing with the formal formation.

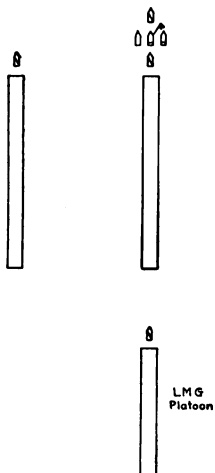


FIGURE 13.—Line of platoon columns.

g. When the troop headquarters is present, it forms as an extra squad of the light machine-gun platoon, but for verification it is reported directly to the first sergeant by the senior non-commissioned officer with it. The men in it who have special places assigned them in the troop formation take their positions as soon as the troop is reported to the troop commander unless otherwise indicated by him. If the light machine-gun platoon is absent from the troop formation, the headquarters detachment forms in the place prescribed for the light machine-gun platoon.

118. To form column of fours (twos, or troopers).—The commands are: 1. *Column of fours (twos, or troopers)*, 2. *MARCH*.

a. If the troop is in a line formation, the base platoon forms column of fours (twos, or troopers) and follows the troop commander or moves in the indicated direction. Each of the other platoons forms a similar column in time to take its place in the troop column. The order of the platoons in column is as prescribed in forming column of platoons.

b. Being in column of twos or troopers, to form column of fours, the leading platoon forms fours and the succeeding platoons follow at an increased gait until they have gained the proper distances when, each in turn, they form fours.

119. To form line.—The commands are: 1. *Line*, 2. *MARCH*.

a. If the troop is in column, the base platoon, if not already in line, forms line to the direction of march and follows the troop commander or moves in the indicated direction. The next rifle platoon in the column changes direction half left at an increased gait and, upon arrival at its proper place on the left of the base platoon, forms line and takes the gait of the base platoon. The third rifle platoon in column is conducted in a similar manner to its proper place on the right of the base platoon. The light machine-gun platoon moves forward at an increased gait and forms line 6 yards in rear of the base rifle platoon.

b. If in line of platoon columns, all of the platoons form line and the platoons other than the base are so led as to gain their correct positions if they do not find themselves already in those positions upon forming line.

c. If in any extended order formation, the platoons are assembled and then conducted so as to form line on the base platoon.

d. When the troop marches in line, each platoon is led by its leader and conforms to the gait, pace, and direction of the base platoon whose leader follows in the trace of the troop commander. The platoon leaders will, without command of the troop commander, so lead their platoons as to pass obstacles with the greatest facility and then resume the original formation.

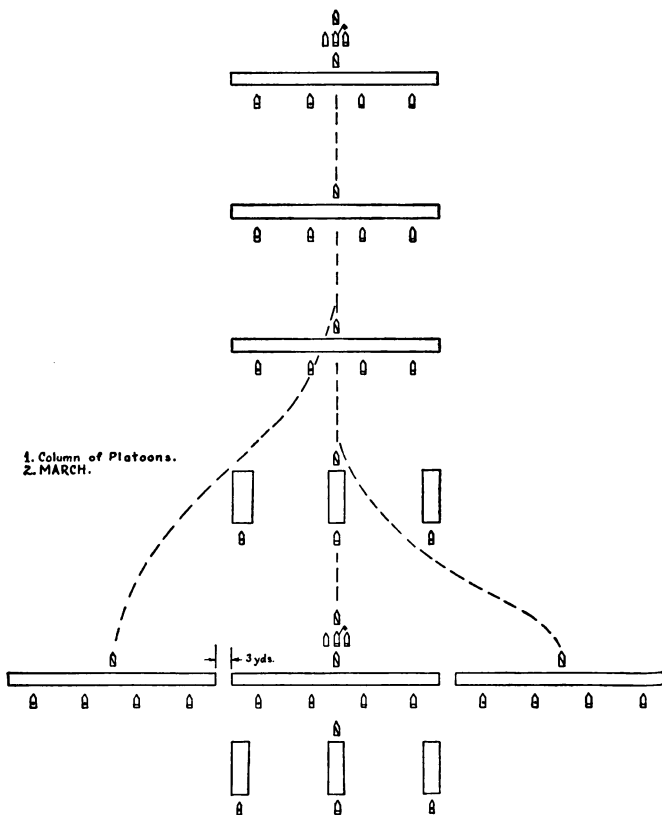


FIGURE 14.—Line and column of platoons.

120. To form column of platoons.—The commands are:
1. *Column of platoons*, 2. *MARCH*.

a. If the troop is in a column formation, such as column of fours, each platoon forms line. The base platoon follows the troop commander or takes the indicated direction. The other platoons, if not already in their places with the correct distances, are led to their proper positions.

b. If the troop is in a line formation, the base platoon moves forward in line and follows the troop commander or moves in the indicated direction. Each of the other platoons forms line, if not already in line, and, at a gait 1° slower than that of the base, awaits the proper time to take its place in the column; it then, by slight changes of direction at the gait of the base platoon, is led to its place at the prescribed distance from the platoon in front of it. The order of the platoons in column is as follows: The base platoon, the next platoon on the left of the base platoon in line, the next platoon on the right of the base platoon in line, the light machine-gun platoon.

121. To form line of platoon columns.—The commands are: 1. *Line of platoon columns*, 2. *MARCH*. The base platoon, if not already in column of fours, forms column of fours to the direction of march and follows the troop commander or moves in the indicated direction. The other platoons form column of fours and are led to their proper places.

122. To assemble the platoon leaders.—The command is: *PLATOON LEADERS REPORT*.

a. At this command the platoon leaders proceed at the gallop to report to the troop commander for instructions. The platoon sergeants take temporary command of platoons.

b. When the troop is in column, the platoon leaders and platoon sergeants of all but the rear platoon repeat the order so that those in rear can hear it.

123. To extend the troop in depth, or laterally, or both.—
a. The platoons may be arranged in any formation, such as one behind the other; a diamond formation; in two waves with the rifle platoons abreast of each other and the light machine-gun platoon in rear; or each platoon may be assigned a route or objective.

b. The troop commander may assemble the platoon leaders, explain the situation, and order any formation he desires; or he may send instructions to platoon leaders by messenger. Certain formations of frequent use may be assumed by drill commands, such as—

(1) 1. *Line of platoons at (so many yards) (such) platoon*, 2. *FOLLOW ME*. The platoon designated follows the troop commander in any formation indicated. The other rifle pla-

toons gain the interval ordered and conform to the movements of the base platoon. The light machine-gun platoon follows the base platoon at 50 yards unless otherwise ordered.

(2) **APPROACH FORMATION.** At this command the troop forms in column of platoons; the platoons form line of half squad columns with normal intervals and with distances of 50 yards between platoons. Intervals and distances may be varied to suit the situation and terrain.

(3) **ATTACK FORMATION.** At this command the troop forms in column of platoons; the platoons form as foragers with normal intervals and with distances of 100 yards between platoons.

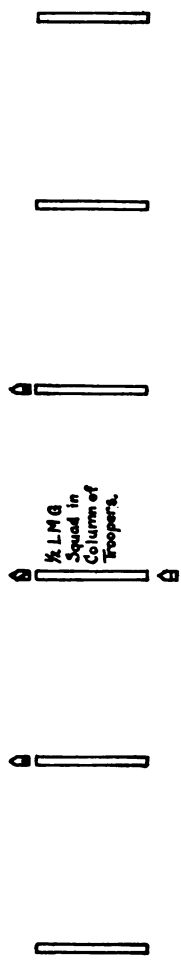
124. To attack.—*a.* When speed is essential, the troop commander indicates an objective to each platoon leader in turn and directs **Move out.** As each platoon moves out, the troop commander and those accompanying him join the next platoon, which he launches similarly in the direction and at the moment desired.

b. When time permits, the troop commander assembles the platoon leaders, explains the situation, and assigns tactical missions to the platoons, adding such details as are necessary to secure coordination of effort.

125. To march to the rear.—*a.* The commands are: 1. **To the rear,** 2. **MARCH.** If the platoons are in line, each platoon executes a turn of 180° to the left. If the platoons are in column of fours (twos, or troopers), each platoon executes a **column left about.**

b. If the troop commander wishes the movement to the rear to be executed by wheeling about by fours, he commands: 1. **Fours left about,** 2. **MARCH.** The movement is executed as explained for the squad. The file closers and first sergeant move to the right to pass through the nearest platoon interval or to pass around the nearest flank to their new positions in rear of the platoons or, in case of the first sergeant, in rear of the troop. The platoon leaders move to their left to pass around the flanks of their platoons to their new positions in front of their platoons. The troop commander passes through intervals or around either flank to gain his new position in front of the base platoon.

0 Bug
 0 33
 0 12345



Troop Hq. omitted.

FIGURE 15.—Approach formation.

83817°—38 (Face p. 56)

c. If the platoons are deployed as foragers, the platoon leaders cause *troopers left about* to be executed as prescribed for the rifle squad in section IV.

d. The light machine-gun platoon marches to the rear by executing squads (or half squads) column left about, or troopers left about, according to its formation. When the troop marches to the rear, the light machine-gun platoon finds itself leading the troop and continues there until the troop commander orders it to rear of troop.

126. To dismount to fight on foot.—a. The troop dismounts to fight on foot by commands and methods corresponding to those prescribed for the squad and platoon. According to the object in view, the troop commander may direct the entire troop or only certain platoons to fight on foot. In emergencies he may order the troop or certain platoons to fight on foot as skirmishers to the right, left, front, or rear.

b. Platoon leaders of the rifle platoons unless directed otherwise assemble their dismounted squads in column of threes and await orders.

c. The leader of the light machine-gun platoon unless directed otherwise assembles his platoon in column of twos and awaits orders. If the squads of the light machine-gun platoon have been attached to rifle platoons, the platoon leader and his two messengers join the troop commander.

d. The troop commander and first sergeant turn their horses over to a bugler. The other bugler and the messenger with troop headquarters join the troop commander. Unless directed otherwise, other members of troop headquarters remain with the led horses.

e. The stable sergeant (guidon) takes charge of the led horses and disposes of them as directed by the troop commander. If the horses of a rifle platoon are to be separated from the horses of the troop, the horses of any light machine-gun squad which may be attached accompany those of the rifle platoon.

127. To leave horses immobile.—The horses may be left immobile by the methods prescribed for the platoon, the stable sergeant (guidon) being left in charge.

128. To rally.—Being in disorder, the troop commander may form the troop hastily in column of platoons by the command: **RALLY**. At this command the platoon leader of each rifle platoon rallies his platoon in line and, without waiting for the squad formations to be completed, conducts the platoon toward the troop commander at a gallop, causing it to count fours as it moves. The first platoon to reach the troop commander becomes the base and the other platoons take positions successively in rear.

129. To assemble.—Being in any formation, dispersed, or in disorder, the troop commander commands: 1. **Assemble in (such) formation**, 2. **MARCH**, or notifies the platoon leaders the formation desired. The troop commander indicates the base platoon and causes it to follow him or designates its location. Each platoon is assembled in an orderly manner and marched to the troop commander or to a point indicated by him. The rifle platoons, unless directed otherwise, form in normal order. All platoons move in the most convenient manner.

SECTION IX

MACHINE-GUN SQUAD

Caliber .30 (heavy) and caliber .50 (HB)

130. Organization.—The machine-gun squad consists of a corporal, 6 privates, 7 riding horses, 3 pack horses, one machine gun and its ammunition.

131. Pack horses.—*a.* In the caliber .30 squad, pack horse No. 1 carries the tripod on the right side, the gun and 1 box of ammunition on the left side, and the spare parts roll as a top load.

b. In the caliber .50 squad, the No. 1 pack horse carries tripod and barrel on the right side, the receiver on the left side, and the spare parts chest with 40 rounds of ammunition (armor piercing) as a top load.

c. Pack horses Nos. 2 and 3 carry the balance of the ammunition.

132. Control.—*a. Corporal.*—The corporal is the leader and sets the direction, gait, and pace.

b. Guide.—The leading horseholder, No. 4, is the guide of the squad and follows the squad leader at 4 feet distance.

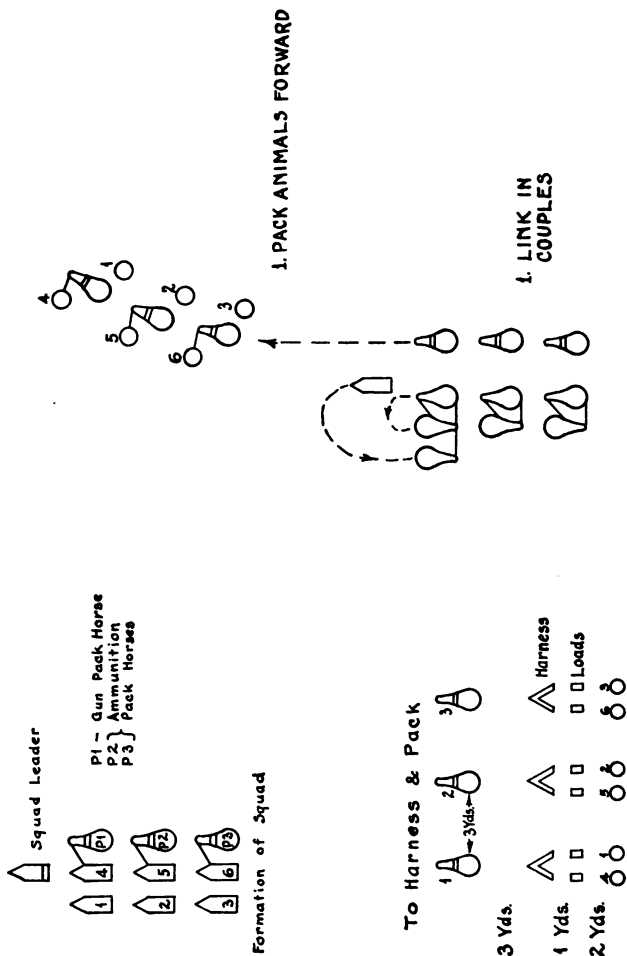


FIGURE 16.—To harness and pack, the squad formed, mounted, and to link in couples.

133. Individual instruction, mounted.—a. Horsemanship.—Before beginning mounted instruction in the machine-gun squad, all machine gunners are trained in horsemanship.

b. Packs and harness.—Preliminary instruction in the care and handling of harness, equipment, and loads may be pursued concurrently with instruction in horsemanship. (See BFM, vol. V.)

c. Leading.—This instruction includes—

(1) *Gaits.*—Leading the pack horses at the walk, trot, and gallop, in turns and abouts; increasing and decreasing the gait; halts, and movements to the front from the halt. The animals are formed and maneuvered in pairs, each horseholder's horse on the left side, each pack horse on the right side of the pair.

(2) *Aids.*—Pack horses are trained to keep abreast of the horseholders' horses. The former are managed by the reins and the voice.

(a) *Reins.*—The reins of the pack horse are used for gathering him, for checking his gait, for halting him, and for reining him back. They are habitually carried in the right hand, without passing over the animal's neck, and so held as to maintain gentle contact with his mouth. The bight or loop of the reins is held in the left hand or secured on the right wrist. The horseholder's horse and the pack horse should be gathered before moving from a halt, before halting, and before changing gait or direction; the riding horse as explained in horsemanship, the pack horse by a slight pressure of the bit. The riding horse is then required to move in the desired manner or to halt; while the pack horse is made to conform to the movement. The pack horse must neither crowd the riding horse nor travel too far from him.

(b) *Voice.*—The voice is an aid of great value to the horseholder. Like all other aids it must cease to act when obedience to it has been obtained. It must be reserved for occasions when it is needed to produce a definite effect.

(3) *Movements.*—Horseholders are required to move their pairs forward, to the flank, to the oblique, and to the about; to execute the changes in gait, and to halt; to aline themselves; to pass from line to column, or from column to line; to rein back; to execute circles; to pass quickly from the halt to the gallop,

ad from the gallop to the halt. The next step is to form the horseholders in columns of pairs and to teach them the commands and movements they are to obey and execute when the pairs are maneuvered as a squad. In this instruction the horseholders are frequently changed about so as to manage leading, rear, and interior pairs. This instruction is followed by the same exercises with the pack horses harnessed, then harnessed and packed.

134. Formations.—The following are the formations of the quad:

a. Column (three's).—In this formation the members of the quad are disposed as follows: The horseholders, Nos. 4 to 6, inclusive, in that order from head to rear, ride in column, No. 4 following the squad leader at 4 feet distance; the pack animals are led from the right of the horseholders; Nos. 1 to 3, inclusive, in that order from head to rear, ride on the left of the horseholders. The first set of three is in line from left to right, Nos. 1 and 4 with pack horse No. 1. The second three is Nos. 2 and 5 with pack horse No. 2. The third three is Nos. 3 and 6 with pack horse No. 3.

b. Column of two's.—The first two is formed by the squad leader and No. 1, with the squad leader, on the right. The second two is No. 4 with pack horse No. 1. The third two is No. 5 with pack horse No. 2. The fourth two is No. 6 with pack horse No. 3. Nos. 2 and 3, No. 3 on the right, form the rear set of two's.

c. Column of troopers.—Nos. 1, 4, 5, 6, 2, and 3, in column, follow the squad leader at 4 feet distance.

d. Line of three's at (so many) yards interval.—This is an extended order formation in which the leading three follows the squad leader at 4 feet distance; the other two three's are in line with the base three, at the interval indicated in the command.

e. Column of three's at (so many) yards distance.—This is an extended order formation in which the three's follow the squad leader with distances between three's as prescribed by the order.

f. Flock.—In this formation, Nos. 1, 2, 3, and 4 form an irregular group to the left rear of the squad leader, Nos. 5 and 6 to the right rear.

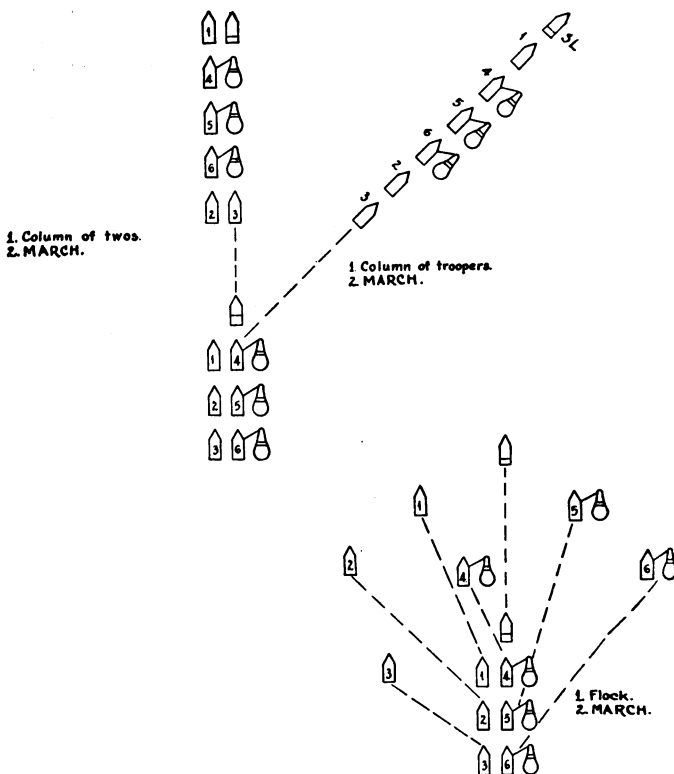


FIGURE 17.—Flock, column of twos, and column of troopers.

135. **To saddle, harness, and pack.**—*a.* The squad leader commands: **SADDLE**. Each trooper saddles and bridles his own riding horse.

b. The squad leader commands: **1. Prepare to harness and pack, 2. HARNESS AND PACK**. At the first command, the riding horses are left tied on the picket line or are linked in couples. The horseholders tie the pack horses on the picket line or line them up at 3 yards interval. Each set of harness equipment and the loads are then brought out and placed 1 yard in rear of the pack horses, the loads in rear of the harness equip-

ment. Nos. 1 and 4 handle the equipment and loads of pack horse No. 1; Nos. 2 and 5, those of pack horse No. 2; and so on. The equipment and loads having been thus placed, the troopers in pairs take the position of attention 2 yards in rear of and facing their equipment, the lower number of each pair on the right. At the second command, the harness equipment and loads are placed on the pack horses and secured. The troopers of each pair work together, the lower number on the right side, higher number on the left side. Each horseholder then bridles his pack horse.

c. If it is not desired to pack the loads, the commands are: 1. *Prepare to harness*, 2. **HARNESS**, in which case the loads are not brought out. If the loads have been temporarily removed from the pack horses without unharnessing, and it is desired to replace the loads, the commands are: 1. *Prepare to pack*, 2. **PACK**.

136. To unpack, unharness, and unsaddle.—a. The commands are: 1. *Prepare to unpack and unharness*, 2. **UNPACK AND UNHARNESS**. At the first command, Nos. 1, 2, and 3 tie their own riding horses and those of their corresponding horseholders on the picket line or link them in couples. The horseholders tie the pack horses on the picket line or line them up as in preparing to harness and pack. The troopers line up in pairs, as in harnessing and packing. At the second command, the loads and harness equipment are removed, the troopers working together. Each horseholder unbridles his pack horse.

b. If it is desired to remove the loads only, the commands are: 1. *Prepare to unpack*, 2. **UNPACK**. If the loads have not been packed or have been removed, the commands are: 1. *Prepare to unharness*, 2. **UNHARNESS**. Loads are frequently removed on the march without unharnessing in order to rest the pack horses.

c. At the command *Unsaddle*, each trooper unsaddles and unbridles his riding horse.

137. To form the squad.—a. To form the squad with horses, the squad leader, mounted, takes position 4 feet in front of where the head of the column is to rest, faces the column, and commands: **LEAD INTO COLUMN**. Nos. 1 to 3, inclusive, untie or unlink their riding horses and those of their corresponding horseholders. The horseholders untie the pack horses.

No. 4, dismounted, leading on his right pack animal No. 4 takes his place 4 feet from and facing the squad leader. The other horseholders, leading their pack horses, take their places in column behind No. 4. Nos. 1 to 3, inclusive, dismount and lead their riding horses on their left and those of the corresponding horseholders on their right, lead out so as to approach their places directly from the rear. On reaching their places, Nos. 1 to 3, inclusive, turn over the riding horses of Nos. 4 to 6, inclusive, to the latter and move to the left side of their horses. The troopers form at stand to horse, with intervals of 18 inches between riding horses; Nos. 1 to 3, inclusive, on the left of their riding horses, Nos. 4 to 6, inclusive, between their riding horses and their pack animals. The squad being formed, the leader verifies the presence of the troopers or calls the roll and commands: **CALL OFF**. The troopers call off successively: "One," "Two," "Three," and so on.

b. Whenever it is desired to form dismounted for gun drill the squad leader commands: 1. **Form for gun drill**, 2. **FALL IN**. At this command, the squad leader takes his place in front of and facing the squad, and the men arrange themselves in the following manner in double rank: Nos. 1 to 3, in the front rank in that order from right to left, covered by Nos. 4, 5, and 6 respectively.

138. To mount and dismount.—a. The squad being formed at stand to horse, the commands for mounting are: 1. **Prepare to mount**, 2. **MOUNT**. At the first command, Nos. 4 to 6, inclusive, move to the left side of their riding horses, and Nos. 1 to 3, inclusive, open out to the left sufficiently to permit all troopers to take the first position of mounting without interfering with each other. At the second command, all the troopers mount simultaneously. Nos. 1 to 3, inclusive, straighten their horses in column as soon as all have mounted.

b. The commands for dismounting are: 1. **Prepare to dismount**, 2. **DISMOUNT**. At the first command, Nos. 1 to 3, inclusive, open out as in preparing to mount. At the second command, the troopers complete simultaneously the movements of dismounting. Nos. 4 to 6, inclusive, take their places at stand to horse between their riding and pack horses. The horses are not straightened in the column after dismounting.

unless the dismounted squad moves forward, the troopers leading their horses.

c. The preparatory commands may be omitted. At the command **Mount** (or **Dismount**), the troopers mount (or dismount) promptly, but not in unison.

139. **Route order.**—Rest, to march to the front, to halt, and to change direction are all executed in the same manner as by rifle units.

140. **To link in couples.**—Being dismounted, at the command **Link in couples**, Nos. 1 to 3, inclusive, turn individually to the left about and lead their horses along the left side of, and facing in the opposite direction to, the horses of the horseholders of their own threes, with whom they link. No. 1 links with No. 4, No. 2 with No. 5, and so on. Each horse is secured by linking or, if there is no link strap, by tying the snaffle reins to the cantle ring of the saddle of the other horse. The squad leader links his horse to the nearest couple. Linking may be used to harness and pack or to unpack and unharness when there is no picket line available. It may be used in order to dismount and lead forward pack horses only.

141. **To form column of two's.**—*a.* The commands are: 1. **Column of two's**, 2. **MARCH**. No. 1 moves up on the left of the squad leader; Nos. 4 to 6, inclusive, with their pack horses, move to the front at the gait of march or the gait ordered. Nos. 2 and 3 halt or take the next slower gait until No. 6 has passed No. 2. Nos. 2 and 3 then form a two. They incline to the right and take their place in rear of the column at the gait of march, following in trace of No. 6 and pack horse No. 3. This movement is executed only at the slower gaits. It is used to obtain a narrower front for marching.

b. To re-form column, the commands are: 1. **Column**, 2. **MARCH**. No. 1 moves to the left oblique to clear No. 4, then to the right oblique to his position on the left of No. 4. Nos. 2 and 3 move left oblique at the increased gait until clear of the column, form in the normal order, one behind the other, and move straight to their places in column.

142. **To form column of troopers.**—*a.* The commands are: 1. **Column of troopers**, 2. **MARCH**. No. 1 moves to the right oblique and follows the squad leader. No. 4 keeps his horse straight at the next slower gait until his horse's head is passed

by the croup of No. 1's horse when he takes up the gait of march and follows No. 1 at 4 feet distance. Nos. 5 and 6 follow No. 4. Nos. 2 and 3 take the next slower gait until No. 6 has passed No. 2 when they move to the right oblique, and follow in trace of No. 6 at 4 feet distance. This movement is executed only at the slower gaits. It is used to pass through narrow defiles, trails, etc.

b. To re-form column, the commands are: 1. **Column**, 2. **MARCH**. No. 4 marches straight to the front at the gait of march or the gait ordered until uncovered by No. 1; he then closes on the squad leader to 4 feet distance. No. 1 obliqués to the left until uncovered and then marches to the front abreast of No. 4. Nos. 5 and 6 follow No. 4 in trace at 4 feet distance. Nos. 2 and 3, at an increased gait, oblique to the left until uncovered and then move up on the left of Nos. 5 and 6, respectively.

143. To oblique by troopers.—a. The commands are: 1. **Troopers right (left) oblique**, 2. **MARCH**. The troopers execute individually a half turn to the right and then march at an angle of 45° to the original direction, each trooper's right knee being in rear of the left knee of the trooper on his right. The squad moves in the new direction regulating on the right (left) trooper, the front of each three parallel to the original front. The right (left) troopers regulate from head to rear. This movement is used only at slow gaits to gain ground for short distances in an oblique direction. Halting the mounted squad at the oblique should be avoided. If necessary to halt the squad, the troopers upon halting turn their horses to the original front.

b. To resume the original direction, the commands are: 1. **Forward**, 2. **MARCH**.

144. To march to a flank.—The commands are: 1. **Three's right (left)**, 2. **MARCH**. Each three wheels simultaneously 90° to the right on a moving pivot. In each three, the trooper on the marching flank moves at the gait of march or the gait ordered and, while maintaining interval toward the pivot, is the guide during the movement. The horseholder, conforming to the movement of the marching flank, turns his pack horse to the right on the arc of a circle whose radius is 1 yard at the walk and trot, and 3 yards at the gallop. Upon completion of

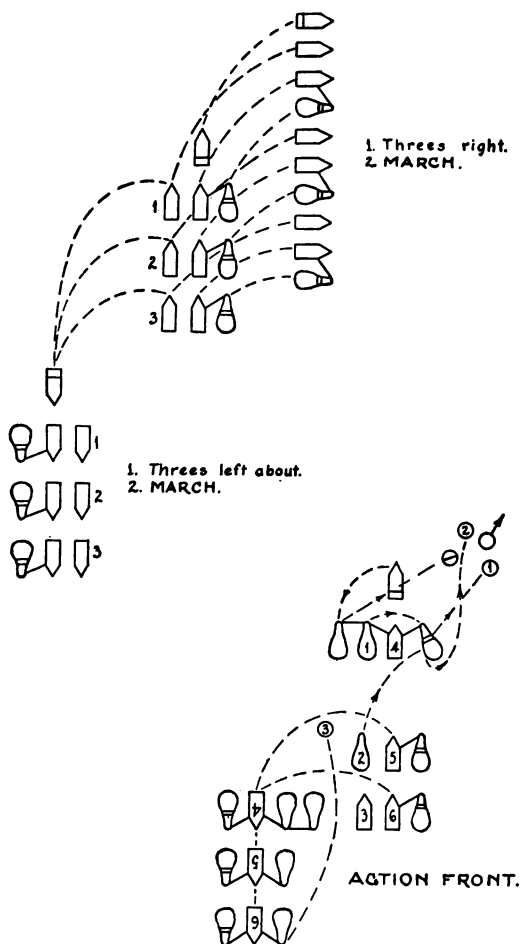


FIGURE 18.—Action front, threes right, and threes left about.

the wheel, all troopers move forward at the gait ordered. This movement is used only at slow gaits to gain ground for short distances to a flank. Great precision is not demanded or expected in the execution of this movement.

145. To march to the rear.—The commands are: 1. *Three's left about*, 2. *MARCH*. Each three wheels simultaneously 180° to the left on a moving pivot. This movement is used only at slow gaits to gain ground for short distances to the rear. For example, when a machine-gun unit is marching in the interior of a cavalry column and it is necessary to march quickly to the rear to conform to the cavalry command *Four's right (left) about* or *Troopers to the rear*. To march again in the original direction, the command is the same.

146. To extend the squad laterally.—The commands are: 1. *Line of three's*, 2. *At (so many) yards interval*, 3. *MARCH*. The first three maintains its position and gait. The second three moves to the left at the increased gait and places itself on line with the first three at the indicated interval. The third three moves to the right in the same manner. The first three is the guide for the squad. This movement is useful in crossing a fire-swept or exposed crest or area.

147. To extend the squad in depth.—The commands are: 1. *Column of three's*, 2. *At (so many) yards interval*, 3. *MARCH*. The three's move out successively in the order prescribed for column and at the distance indicated in the order. All sets of three's except the leading set decrease the gait 1° to obtain the required distance. The squad leader indicates the point where the squad is to be assembled. This movement is useful in crossing a fire-swept or exposed area.

148. Being in column of three's, two's, or troopers, to form flock.—The commands are: 1. *Flock*, 2. *MARCH*. Dispersion is made as follows: Nos. 1, 2, and 3 form an irregular group to the left rear of the squad leader; Nos. 5 and 6 to his right rear; and No. 4 follows him approximately in trace. Distances and intervals of not less than 10 nor more than 20 yards are taken and maintained. All troopers move at an increased gait and by the shortest route to their positions.

149. To assemble the squad.—The squad being extended laterally or in depth, to assemble the squad the commands are:

1. *Assemble*, 2. *MARCH*. The three's move to their normal places in column. The assembly is normally executed at the trot.

150. To fight on foot.—The command is: *ACTION FRONT (RIGHT, LEFT, REAR)*.

a. Caliber .30 (heavy) machine gun.—Rapidly of going into action and opening fire is a primary consideration. All halt with the exception of No. 4 and pack animal No. 1 who move forward a sufficient distance to allow the squad to unpack pack animal No. 1 without interference. The squad leader and Nos. 1 and 2 dismount. The squad leader links his horse to the left side of No. 1's horse. Simultaneously Nos. 1 and 2 pass their snaffle reins to the corresponding horseholders who grasp them in such a manner as to best control the horses. No. 1 moves rapidly in front of No. 4 to the right side of pack animal No. 1, releases the tripod, and mounts it in the vicinity of No. 1 pack horse. No. 2 moves rapidly in front of No. 5 and, approaching pack animal No. 1 from the rear, pushes the animal's haunches to the right. He releases the gun and ammunition chest and carries them to the position marked by No. 1. With the assistance of No. 1, No. 2 places the gun in its position on the tripod. No. 5 conducts the other pack horses to cover in the direction opposite to that in which the gun is mounted and faces them toward the gun, except in the case of *action rear*. In *action rear*, pack horse No. 1 is moved slightly out of the squad to the left to permit the other pack horses to move directly forward in the original direction. As soon as the load is removed from pack horse No. 1, he is conducted to the other pack horses and placed at that end of the squad nearest and facing the gun. No. 3 dismounts when the pack horses have gained their positions under cover, or as prescribed for drill, and takes position so as to forward any supplies ordered. Ordinarily, only the box of ammunition on pack horse No. 1 is unpacked in this type of action. The spare parts roll is not unpacked unless required.

b. Caliber .50 machine gun (HB).—This is the same as for the caliber .30 (heavy) machine gun except that No. 3 dismounts when the squad leader and Nos. 1 and 2 dismount and perform the duties described in *a* above. However, only the

ammunition on the gun animal and one box from No. 2 pack horse are unpacked prior to the movement of the led horses to cover. The squad leader does not secure the telescopic sight to the receiver in this case unless he can do so without delaying the firing.

151. To go out of action.—The command is: **OUT OF ACTION.**

a. Caliber .30 (heavy) machine gun.—(1) The gun is unloaded and the gun and equipment are moved back by hand to a position to which the led horses may be brought.

(2) Upon the arrival of the led horses, the squad leader commands: **PACK.** Nos. 1 and 2 pack the gun, tripod, spare parts roll, and ammunition box on pack horse No. 1, in reverse order to that in which it was unpacked. When this is accomplished they assist No. 3 in completing the loads of pack horses Nos. 2 and 3 if necessary. No. 3 packs any remaining ammunition on pack horses Nos. 2 and 3 in case these horses are not fully loaded; otherwise he assists Nos. 1 and 2 in packing pack horse No. 1. When practicable, the water jacket on the gun is refilled immediately. In replacing ammunition boxes, care must be taken to balance the loads by placing the same number of full boxes on each side of the horse. The ammunition box placed on pack horse No. 1 is habitually a full box. The squad leader and Nos. 1 to 3, inclusive, mount.

(3) The squad leader may command **Pack**, in which case the animals are brought forward at a rapid gait and packed at or near the gun position.

b. Caliber .50 (HB) machine gun.—This is the same as for the caliber .30 (heavy) machine gun except that No. 3 removes the barrel of the gun from the receiver and packs it and the chest of spare parts and ammunition on pack horse No. 1.

SECTION X

ELEMENTARY GUN DRILL, MACHINE GUN

152. Purpose and scope.—*a.* The primary purpose of elementary gun drill is to teach the duties of Nos. 1, 2, and 3 in mounting and dismounting, loading and unloading the gun. The development of accuracy is the most important considera-

tion. When accuracy has been obtained, emphasis will then be placed on the development of speed. This section prescribes the elementary gun drill for machine-gun squads with the following equipment:

- (1) Machine gun, caliber, .30, with tripod M1917.
- (2) Machine gun, caliber .30, with tripod M1917A1.
- (3) Machine gun, caliber .50 (HB), with tripod M3.

b. Modifications of equipment may necessitate variations in detailed methods. However, the drill and the detailed principles of handling the equipment as prescribed in this manual will govern.

153. Composition of the squad.—*a. Caliber .30 squad.*—The squad for gun drill purposes consists of one corporal and as many privates (not to exceed 6) as are being instructed, with the squad equipment, less saddle and pack equipment. The corporal commands the squad; No. 1 is the gunner; No. 2, the loader and assistant gunner; and Nos. 3 to 6, inclusive, are ammunition and water carriers.

b. Caliber .50 (HB) squad.—Same as *a* above, omitting reference to water.

154. Equipment required.—The following articles of equipment are required for elementary gun drill:

a. Caliber .30 squad.

(1) Tripod and gunner's pouch.

(2) Gun.

(3) Ammunition box, ammunition belt containing a few dummy cartridges, and water box.

(4) Any convenient target such as a landscape target, a rectangular target having on it a square, circle, and a triangle, and a stake with an aiming mark on it.

b. Caliber .50 (HB) squad.

(1) Tripod.

(2) Receiver and jointed cleaning rod.

(3) Barrel with breech and muzzle covers.

(4) Spare parts chest with at least 6 rounds of dummy ammunition in a belt.

(5) Target as in *a* (4) above.

155. To secure equipment.—*a.* The squad being in any formation, or not formed, the command is: **SECURE EQUIP-**

MENT FOR ELEMENTARY GUN DRILL. At this command the men fall out and obtain equipment, as follows:

(1) *Caliber .30 squad.*

No. 1, tripod and gunner's pouch.

No. 2, gun.

No. 3, ammunition box, ammunition belt with dummy cartridges, and water box.

No. 4, target.

(2) *The caliber .50 (HB) squad.*

No. 1, tripod.

No. 2, receiver and jointed cleaning rod.

No. 3, the barrel with breech and muzzle covers and the spare parts chest with dummy ammunition.

No. 4, target.

b. After the equipment is secured, the squad assembles without command in the original formation or as ordered.

156. To lay out equipment.—The squad being in any formation, at the command *Lay out equipment for elementary gun drill*, the equipment is laid out as follows (fig. 19):

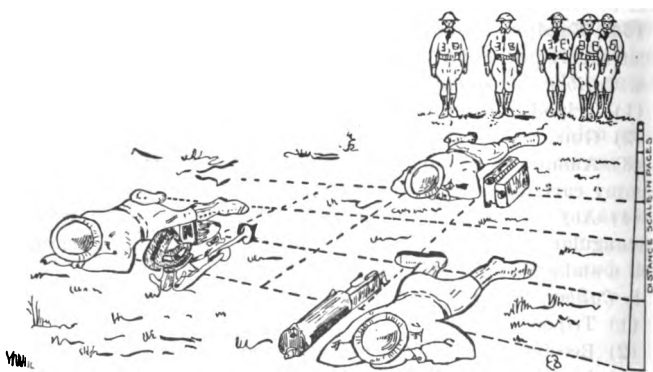


FIGURE 19.—The squad posted for elementary gun drill.

a. *Caliber .30 squad.*—(1) Tripod with trail to the rear at the position designated by the instructor.

(2) Gun, with muzzle to the front, 3 paces to the left of and on line with the tripod.

(3) Ammunition box 3 paces in rear of the center of the interval between the gun and the tripod and water box on the left of and on line with the ammunition box.

(4) Target at any convenient distance in front of the tripod as designated by the instructor.

b. Caliber .50 (HB) squad.—(1) Tripod with trail legs to the rear at the position designated by the instructor.

(2) Receiver, with grips to the rear, 3 paces to the left of and on line with the tripod.

(3) Barrel 3 paces in rear of the center of the interval between receiver and tripod; the spare parts chest, latch to the left, on the left of and on line with the barrel.

(4) Target at any convenient distance in front of the tripod as designated by the instructor.

157. To form the gun squad.—*a.* The corporal places himself 3 paces in front of where the center of the squad is to be and commands: 1. **Form for elementary gun drill**, 2. **FALL IN**. At this command the men assemble at attention, forming on No. 1, who takes post 8 paces in rear of the tripod. They are arranged in two ranks with four men in the front rank. The rear rank forms at a distance of 40 inches. In forming, each man executes **right dress**. When the squad is part of a larger unit, the corporal forms in the line of file closers in rear of the right file.

b. The corporal then commands: **CALL OFF**. At this command all except the right file execute **eyes right** and, beginning on the right, call off successively from right to left as follows: 1, 2, 3, 4 (front rank) and 5, 6 (rear rank). Each man turns his head and eyes to the front as he calls.

c. After the squad is formed, the corporal cautions the squad that No. 1 is to repeat all subsequent commands and No. 2 is to repeat all signals.

158. To post the gun squad.—*a.* The squad being formed after laying out equipment for elementary gun drill, the corporal commands: **POSTS**. At this command, Nos. 1, 2, and 3 move at a run and take prone positions as follows (fig. 19):

(1) *Caliber .30 squad.*

No. 1 on the right of the tripod.

No. 2 on the left of the gun.

No. 3 on the right of the ammunition and water boxes.

Nos. 4 to 6 stand fast unless otherwise directed. They may be called up to a convenient position near the gun to observe the drill.

(2) *Caliber .50 (HB) squad.*

No. 1 on the right of the tripod.

No. 2 on the left of the receiver.

No. 3 on the right of the barrel and spare parts chest.

Nos. 4 to 6 stand fast unless otherwise directed. They may be called up to a convenient position near the gun to observe the drill.

b. The gun being mounted and the numbers having left the gun, the corporal commands: **POSTS**. At this command, all numbers take their regular positions.

159. To stand clear of the gun or the gun equipment.—The equipment being laid out or the gun being mounted, at the command **Stand clear**, the gun is cleared and all numbers at the gun equipment step back 3 paces without disturbing the equipment.

160. To change numbers and duties in the squad.—The squad being in any formation, at the command **Fall out, one (two, three)** (or any number in the squad), No. 1 takes the position of the last number of the squad. No. 2 calls out, "One," and moves over to the position of No. 1. No. 3 calls out, "Two," and moves over to the position of No. 2; and so on throughout the squad, each man moving up one number and immediately examining the equipment pertaining to his new number. When a number other than No. 1 is directed to fall out, he takes the position of the last number of the squad. The numbers following the designated number call out their new number and move over to their new positions. The men preceding the designated number do not change their positions.

161. To examine the gun equipment.—The equipment being laid out, at the command **Examine equipment**, each man examines the gun equipment as described below.

a. *With M1917 tripod*.—No. 1 examines the tripod and sees that—

- (1) Legs and trail are closely folded and clamped.
- (2) Strap is securely buckled around the trail.
- (3) Cradle is alined over the trail.

(4) Traversing clamp is adjusted with the proper friction for the 2-mil tap. When so adjusted it is said to be "sticky."

(5) Traversing dial is clamped.

(6) Trunnion and elevating pins are inserted properly and turned down.

(7) Elevating arc is alined near its center.

(8) Elevating screw threads are exposed about 1 inch.

(9) Oil can is filled.

(10) Gunner's pouch is complete and securely fastened on the left side of the cradle, back of the ammunition box supports.

b. With M1917A1 tripod.—No. 1 examines the tripod and sees that—

(1) Legs and trail are closely folded and clamped.

(2) Strap is securely buckled around the trail.

(3) Cradle is alined over the trail.

(4) Traversing clamp is tightened and the traversing gear is centered.

(5) Traversing dial is clamped.

(6) Gun pintle lock is turned down and the elevating pin is in its forward hole.

(7) Elevating arc is alined near its center.

(8) Upper end of the elevating screw is exposed about three-fourths of an inch.

(9) Oil can is filled.

(10) Gunner's pouch is complete and securely fastened to the trail leg.

c. With caliber .50 M3 tripod.—No. 1 examines the tripod and—

(1) Tests the trail and front leg extensions, extension latches, and extension clamps leaving them in the short position.

(2) Sees that the legs and trails are closely folded and the front leg clamp is tight.

(3) Tests the traversing bar latch and the pintle latch, leaving the pintle latch open.

(4) Tests the traversing dial and clamps it at zero.

(5) Sees that the pintle socket is free from dirt.

(6) Sets the sight at 700 yards and deflection disk at zero.

d. Caliber .30 squad.—No. 2 examines the gun and sees that—

(1) Muzzle is pointed to the front.

- (2) Muzzle gland is screwed in tight.
- (3) Barrel is clear.
- (4) Barrel is fully forward.
- (5) Steam plug cork is inserted in the steam plug cork hole.
- (6) Water plugs are screwed in tight.
- (7) Rear sight leaf is lowered, with sight set at 700, and wind gage set at zero.

- (8) Cover is closed and latched.
- (9) Driving spring is extended.
- (10) Firing pin spring is released.
- (11) Gun pintle moves freely but without looseness.

e. Caliber .50 squad.—No. 2 examines the receiver and sees that—

- (1) Barrel front support bushing is free from dirt.
- (2) Feed mechanism and bolt switch are set for left hand feeding.
- (3) Striker projects through the striker hole in the face of the bolt.

- (4) Cover is closed and latched.
- (5) Rear sight is set at 700 yards and the windage at zero.
- (6) Elevating screws are equally exposed about 1 inch and that the elevating pin is in securely.

- (7) Back plate is latched and locked in place.
- (8) Bolt release is fully open.
- (9) Trigger is pressed.

f. Caliber .30 squad.—No. 3 examines the belts and boxes and sees that—

- (1) Cartridges are correctly placed and alined.
- (2) Belts are clean and dry.
- (3) Belts are correctly packed in the box.
- (4) Box lid is closed and fastened and the latch is toward the front.

(5) Water box is full of water, the lid is screwed in, and the outlet cap is tight.

g. Caliber .50 squad.—No. 3 examines the barrel and spare parts chest and sees that—

- (1) Bore is clear.
- (2) Barrel handle is securely attached to the barrel.
- (3) Breech and muzzle covers are on.
- (4) Front and rear bearings are free from dirt.

(5) Contents of the spare parts chest are as prescribed and properly packed.

(6) Cover of the chest is closed and latched with the latch to the left.

h. Upon completion of the examination of the equipment, reports are submitted as follows:

(1) *Caliber .30 squad.*

(a) No. 3 reports, "Ammunition correct."

(b) No. 2 reports, "Gun and ammunition correct."

(c) No. 1 reports, "All correct."

(2) *Caliber .50 squad.*

(a) No. 3 reports, "Spare parts and barrel correct."

(b) No. 2 reports, "Gun and spare parts correct."

(c) No. 1 reports, "All correct."

Any deficiencies are reported instead of reporting, "All correct."

i. Examination of the gun equipment is made at the beginning and at the end of the drill in order to familiarize the men with the equipment so that they will know when it is complete.

162. To mount the tripod.—a. *M1917 and M1917A1 tripods.*—The position at which the tripod is to be mounted having been designated, the corporal commands: **MOUNT TRIPOD.** At this command, No. 1 grasps the left side of the cradle of the tripod with his left hand, steadies it with his right hand if necessary, and moves forward at a run to the designated position. He then places the tripod on the ground, straddles the trail, unclamps the legs simultaneously with both hands (fig. 20), grasps the tripod with his right hand and, with his left hand on the front spacer (gun pintle socket block with M1917 A1 tripod), swings the legs to the front. Continuing to straddle the tripod, with the left hand grasping the front spacer and the left forearm resting on his thigh, after glancing up to see that the trail is alined with the target, he adjusts the tripod to the ground so that the traversing dial is level, and clamps both legs of the tripod with his right hand. (See fig. 21.) He then sits down behind the tripod, withdraws the elevating and trunnion pins, and holds them. With M1917 A1 tripod he withdraws elevating pin with his left hand and holds it. With his right he turns up the gun pintle lock.

b. Critique on mounting M1917 tripod.—While the tripod mounted, the following points are noted by the corporal:

(1) Action in springing from the prone position and going forward.

(2) Movement of hands in unclamping the legs.

(3) Method of steadying tripod when clamping both legs.

(4) Trail pointing to the rear and aligned on the target.

(5) Shoes of legs and trail on ground.

(6) Leg clamps tight.

(7) Traversing dial level.

(8) Elevating screw thread exposed about 1 inch ($\frac{3}{4}$ inch on 1917A1 tripod).

(9) Dials and arcs clamped in their proper positions.



FIGURE 20.—Mounting the tripod (first step).



FIGURE 21.—Mounting the tripod (second step).

c. Caliber .50 M3 tripod.—No. 1 grasps the right trail leg near the tripod head with his right hand and the left trail leg near the center with his left hand. He then springs to his feet, carrying the tripod across the front of his body (front leg to the front) and moves rapidly to the position indicated. He drops the trail spades to the ground, steadying the tripod in a vertical position with his left hand on the front leg, and loosens the front leg clamp with his right hand. He then swings the front leg forward and clamps it securely in such a position that the traversing dial will be level when the tripod is mounted. He then lets go with both hands, stoops quickly, and regrips the trails with each hand just above the spades.

lifts and spreads the trails with one outward jerk of the hands and allows the tripod head to fall to the ground, at the same time taking the prone position between the trails and close to the traversing bar.

NOTE.—Adjustments of the front leg extension are made before stooping to spread the trails. Adjustments of the trail extensions are made after spreading them. All extension latches and extension clamps must be tightened securely.

163. To dismount the tripod.—*a. M1917 and M1917A1 tripods.*—At the command *Dismount tripod*, No. 1 replaces the elevating and trunnion pins and turns them down. For M1917 A1 tripod he replaces elevating pin and turns down the gun pintle lock. He grasps the right side of the cradle of the tripod with his right hand, steadying it with his left hand, if necessary, turns to the left, and carries the tripod back at a run to a point 1 pace in rear of the original position, or to some other designated point. He places it on the ground, trail to the rear, straddles the trail and unclamps the legs simultaneously, allowing the tripod to collapse. He then grasps the tripod with his left hand at the front spacer or the gun pintle socket block and his right hand at the right side of the cradle and folds the legs back along the trail with a short upward and downward movement. He then takes the prone position to the left of the tripod.

b. Caliber .50 M3 tripod.—At the command *Dismount tripod*, No. 1 places his hand on traversing bar latch, presses it as he springs to his feet, and lifts the front of the tripod to the vertical position. Pivoting left about on left trail leg of the tripod he closes the trails, lifts the tripod across the front of his body, and carries it back to its original place. Dropping the trail spades to the ground, he loosens the front leg clamp, lowers the tripod, folding the front leg and assuming the prone position as he does so. He then tightens the front leg clamp.

164. To mount the gun.—*a. Caliber .30 (heavy) gun.*—At the command *Mount gun*, the tripod is mounted as previously described.

(1) As soon as the tripod is nearly in position, No. 2 grasps the grip with his right hand, passes his left hand over and under the water jacket, raises the gun under his left arm, moves forward at a run and takes position on the left of the

tripod and facing it. He reaches the position at the moment No. 1 removes the elevating pin and/or the trunnion pin. No. 2 places his left foot between the legs of the tripod and kneels on his right knee while supporting the weight of the gun on his left knee. With the assistance of No. 1 he places the gun in position, inserts the trunnion pin and turns it down. (See fig. 22.) With the M1917A1 tripod he inserts the gun pintle in the socket and locks it. He then lies down on the left of the gun, head below and in rear of the feedway.

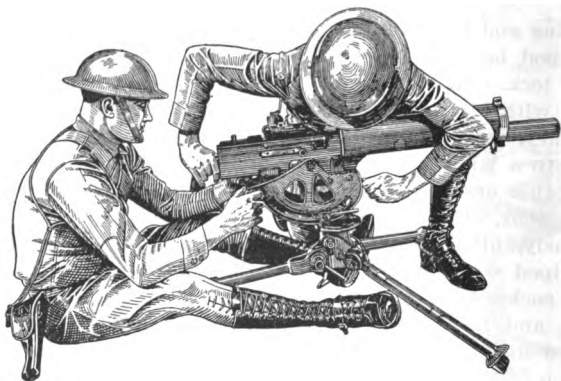


FIGURE 22.—Mounting the gun.

(2) No. 1 assists No. 2 in adjusting the gun on the tripod, inserts the elevating pin and turns it down. No. 1 grasps the grip lightly with one hand, the forefinger extended to engage the trigger, the other hand placed lightly on top of the grip. (See fig. 23.)

(3) No. 3 takes forward one ammunition box and one water box. He places the ammunition box with the latch to the right so that it is in the loading position and in line with the feedway. He places the water box with the lid up, in front of and leaning against the left leg of the tripod. He arrives with the ammunition and water boxes at the moment No. 2 starts to lie down. He then returns to his original position.

(4) No. 2 signals, "Ready" when the gun is mounted and the equipment is in the proper place.

(5) *Critique.*—When the gun is mounted and Nos. 1, 2, and 3 are in position, the following points in addition to those covered in the critique on the mounting of tripod are carefully noted and criticized by the instructor:

- (a) Action of Nos. 1, 2, and 3 until the gun is mounted.
- (b) Tripod and gun at suitable height for the gunner.
- (c) Traversing clamp adjusted for 2-mil tap, M1917 tripod. (Traversing gear centered on the M1917A1 tripod.)
- (d) Long axis of gun approximately horizontal.
- (e) Muzzle gland screwed in tight.
- (f) Barrel fully forward.
- (g) Steam plug cork inserted in the steam plug cork hole.
- (h) Water plugs screwed in tight.
- (i) Rear sight leaf down, slide set at 700, wind gage set at zero.
- (j) Cover latched.
- (k) Driving spring released.
- (l) Firing pin spring released.
- (m) Ammunition and water box in correct position.
- (n) No. 1 with proper position at the gun.
- (o) No. 2 lying with head below and rear of the feedway.
- (p) No. 3 lying in rear of the gun and to a flank.
- (q) All commands repeated by No. 1.
- (r) No movement after signal, "Ready" by No. 2.

b. *Caliber .50 (HB) gun.*—At the command *Mount gun*, the tripod is mounted as previously described.

(1) No. 3 removes the breech and muzzle covers. As No. 1 stoops to grasp the trails, Nos. 2 and 3 spring to their feet.

(2) No. 2 grasps the right grip with his right hand and the barrel front support with his left; moves quickly to the left side of the tripod where he stamps the front leg spade into the ground with his left foot, inserts the pintle into the pintle socket and rotates the pintle latch until the stud is down, locking the receiver to the tripod.

(3) No. 3 grasps the barrel handle with his right hand thumb toward the breech and the spare parts chest with his left hand. He moves quickly past the right side of the tripod placing the spare parts chest to the left of the front leg, latch to the rear, as he passes. Facing left about and reversing the barrel he straddles the barrel and, with both hands on the handle and

the knees steadying the forearms, carefully inserts the barrel into the receiver. He then screws it in until a resistance other than the barrel locking spring is felt. He adjusts the headspace by unscrewing the barrel the proper number of clicks. If the proper number is not known, unscrew the barrel two clicks. The barrel handle is turned straight down and secured. No. 3 then moves to the rear right of the gun, tramping in the right trail spade as he passes, and takes the prone position.

(4) No. 2 moves the spare parts box to its position near the feedway, stamps in the left trail, takes the prone position near the feedway and opens the spare parts chest.



FIGURE 23.—The gun mounted.

(5) No. 1 places the elevating gear on the traversing bar, latches the bolt release down, and raises the rear sight leaf or puts on the telescopic sight, whichever is to be used.

(6) When the gun is mounted, No. 1 reports, "Up" and No. 2 signals, "Ready."

165. To dismount the gun.—*a. Caliber .30 (heavy) gun.*—At the command **Dismount gun**, No. 1 removes the elevating pin and/or the trunnion pin and turns up gun pintle socket lock, if necessary. When No. 2 has removed the gun, No. 1 dismounts the tripod. No. 2 places the ammunition and water boxes to the left, so as to be clear of his own position. He then lifts the gun from the tripod, turns to the left, and runs to the original position or to a point designated. After placing the gun on the ground with the muzzle to the front, he sees that the gun is unloaded, that the trigger is pulled, that the rear sight is set at 700, that the wind gage is set at zero, and that the sight leaf is laid down. No. 3 runs forward to the

gun position and brings the ammunition and water boxes to the original position or to a point designated.

b. Caliber .50 (HB) gun.—At the command **Dismount gun**, No. 1 loosens the traversing clamp and lowers the sight leaf. No. 2 moves the spare parts chest to the front out of his way and pulls out the pintle latch rotating it so that it will remain open. No. 3 comes up rapidly, straddles the barrel, facing to the rear, and unscrews the barrel from the barrel extension. He withdraws the barrel carefully with the left hand, at the same time stepping backward with the left foot to clear the muzzle. He then picks up the spare parts chest in his right hand and, passing the right side of the tripod, returns rapidly to his original position. No. 2 lifts out the receiver, turns to the left about and runs to his original position. As soon as No. 2 has cleared, No. 1 dismounts the tripod as described above. As each man resumes his original position he executes **Examine equipment**, omitting the reports.

166. To load and half load the gun.—*a. To load caliber .30 (heavy) gun.*—At the command **Load**, No. 1 advances his right hand to a point opposite the belt exit and holds it in a position ready to grasp the brass tag of the belt. No. 2 opens the ammunition box, holds the end of the belt with his right hand at the point where the brass tag joins the fabric and pushes the tag through the feed opening as far as possible. No. 1 grasps the tag as it is pushed from the belt exit and gives it a quick jerk to the right. He next quickly pulls the bolt handle to its rearmost position and releases it. He again pulls the bolt handle to its rearmost position and releases it. The gun is then fully loaded. No. 1 resumes his proper position at the gun.

b. To half load caliber .30 (heavy) gun.—At the command **Half load**, the operation is the same as described in *a* above except that the bolt handle is pulled to its rearmost position and released only once.

c. To load caliber .50 (HB) gun.—At the command **Load**, No. 2 inserts the first round of the double loop end of the belt into the feedway until the cartridge is held to the right of the belt holding pawl. No. 1 pulls the bolt to the rear twice, releasing it each time.

d. To half load caliber .50 (HB) gun.—At the command **Half load**, No. 1 pulls the bolt to the rear only once and releases it.

167. *To unload the gun.*—*a. Caliber .30 gun.*—At the command **Unload**, No. 1 pulls back the latch with his left hand, raises the sight leaf with his right hand, then raises the cover with the same hand. No. 2 lifts the belt up and removes it from the feedway. No. 1 lowers the extractor with the left hand and the cover with the right, pulls the bolt handle once to its rearmost position and releases it. After the bolt handle is released, he pulls the trigger and lowers the sight leaf. As soon as No. 1 has raised the cover sufficiently, No. 2 lifts up and removes the bolt from the feedway, packs it carefully in the ammunition box and closes the ammunition cover.

b. Caliber .50 (HB) gun.—At the command **Unload**, No. 1 unlatches the bolt release and No. 2 raises the cover and lifts out the belt. No. 1 then pulls the bolt to the rear. No. 2 sees that the chamber and T-cut are clear of cartridges and signals, "Ready." No. 1 presses the bolt release, No. 2 lowers the cover, and No. 1 pulls the trigger.

168. *To clear the gun.*—*a. Caliber .30 (heavy) gun.*—(1) At the command **Clear gun**, No. 1 pulls back the latch and raises the sight leaf and cover.

(2) No. 2 lifts the bolt up and removes it from the feedway.

(3) No. 1 then pulls the bolt handle to its rearmost position and engages the extractor cam plunger behind the extractor feed cam and sees that the cartridge is ejected.

b. Caliber .50 (HB) gun.—(1) At the command **Clear gun**, No. 1 unlatches the bolt release.

(2) No. 2 raises the cover and lifts out the belt.

(3) No. 1 then pulls the bolt to the rear.

(4) No. 2 sees that the chamber and T-cut have no cartridges in them and signals, "Ready." He then replaces any live rounds in the belt and returns the belt to the chest.

SECTION XI

ADVANCED GUN DRILL, MACHINE GUN

169. *Purpose and scope.*—*a.* The primary purpose of advanced gun drill is to teach every member of the gun squad the duties of every number in mounting, loading, laying, firing.

and serving the gun under conditions more varied than those of the drill field.

b. Elementary gun drill should be mastered and instruction in sight setting and aiming given before advanced gun drill is taken up.

c. The methods prescribed in the paragraphs below for the caliber .30 (heavy) machine gun are equally applicable to the caliber .50 (HB) machine gun with the necessary modifications due to differences in equipment.

170. Rules for training.—a. In advanced gun drill the squad should first be trained in the duties of Nos. 1, 2, and 3. When all the men are proficient in these duties the squad should be given instruction in the duties of all the numbers.

b. Training is given in mounting the gun for antiaircraft fire and in using the antiaircraft sight and stadia after the squad is proficient in other phases of advanced gun drill.

c. In the earlier stages of training in advanced gun drill, only the equipment necessary for the particular drill is required. When all members of the squad are familiar with the duties of Nos. 1, 2, and 3, all the equipment of the squad is used and each number made familiar with it. During advanced gun drill whenever any or all of the squad equipment is used, responsibility and procedure are as follows:

(1) *Corporal.*—The corporal commands the squad and is responsible for the action of the squad and for its entire equipment and supplies. He is further responsible as described in the following paragraphs of this section. He carries the clinometer on his belt and in addition carries the panoramic sight, spare barrel, and cleaning rod.

(2) *No. 1.*—As described in the following paragraphs of this section. He carries the tripod with the gunner's pouch attached.

(3) *No. 2.*—As described in the following paragraphs of this section. He assists at the gun as directed by No. 1, and when water is used, keeps the water jacket filled, carries the gun, with flash hider, if used, and steam-condensing device attached, and the asbestos mittens.

(4) *No. 3.*—As described in the following paragraphs of this section. He puts the end of the steam-condensing device in the water box. He is further responsible for the supply of

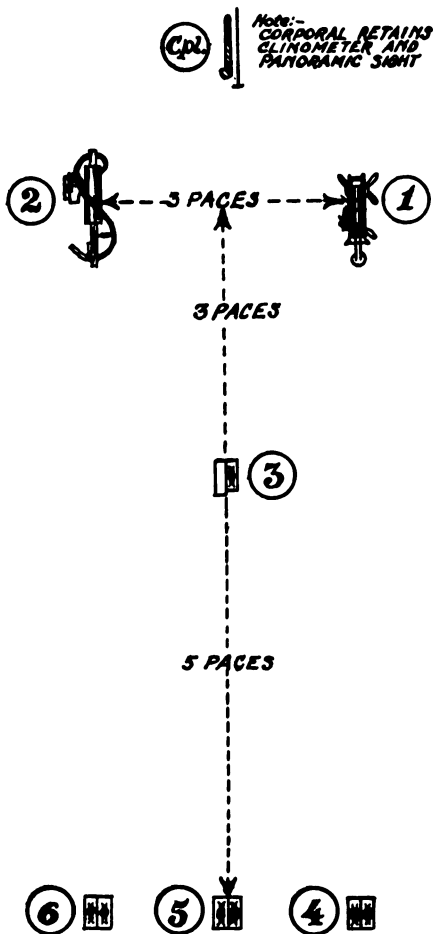


FIGURE 24.—Layout of equipment, advanced gun drill.

ammunition, water, oil, and spare parts to the gun position and the return of all empty belts and boxes to the point to which the carriers bring up the supplies. He carries one box

of ammunition and one water box with a carrying sling, if available.

(5) *Nos. 4 to 6, inclusive.*—As described in the following paragraphs of this section. They are further responsible for the supply of ammunition, water, oil, and spare parts to No. 3, and for the return of all empty belts and boxes to the ammunition point. Each number carries two boxes of ammunition or its equivalent load by means of a carrying sling, if available.

d. Whenever any part or all the equipment is issued it is laid out for drill as shown in figure 24.

171. **To carry gun equipment by hand.**—At the command *March order*, No. 1 clamps the legs of the tripod with the front legs making an angle of about 90° with the trail. The tripod is carried with the front legs over the shoulders and the trail

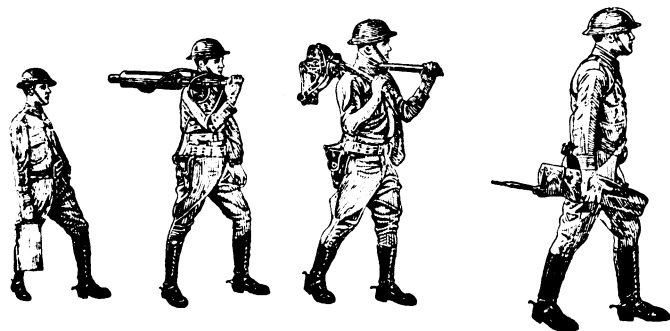


FIGURE 25.—Carrying gun equipment by hand.

lying flat against the back. No. 2 places the asbestos mittens on either shoulder, then places the gun on the mittens with the left side plate down, and holds the gun at the grip with his hand. The remainder of the squad place the carrying straps over their shoulders and adjust the ammunition and water boxes, and the spare parts box, if carried, to the straps. The squad is then marched in the desired formation by the appropriate command. (See fig. 25.)

172. **To mount the gun in low position.**—*a.* Before the gun is mounted in the lowest position the tripod may be in any of the following adjustments:

(1) Folded in the usual way, with the trail set at an angle suitable for the normal sitting position.

(2) The trail set at an angle suitable for the lowest position without adjustment after mounting.

(3) The trail set at an angle suitable for the lowest position so that it will not have to be adjusted after mounting and, in addition, the two legs, instead of being alongside the trail, are swung forward, upward, and backward, to point in the air.

(4) The tripod adjusted for carrying on the back.

(5) The tripod is mounted for the low position prior to being brought forward.

(6) The tripod may be carried forward in the usual way by crawling and dragging the tripod or by crawling with the tripod carried on the back.

(7) With any of the methods of preliminary adjustment of the tripod for the lowest position, the mounting of the gun is carried out in a similar manner to that prescribed in *b* below.

b. When, before mounting, the tripod is adjusted in the usual way with the trail set at a suitable angle for the normal sitting position, at the command **Mount gun**, No. 1 crawls with the tripod to the position indicated, places it on the ground, lies down on the right side of it with his feet to the front, and loosens the trail and leg clamps. He then adjusts the legs by rolling the tripod to the right and left and raises the socket about 1 inch from the ground, supporting the socket in the palm of his left hand. Keeping the socket upright, he clamps the trail clamp and then tightens the leg clamps. He then removes the trunnion and elevating pins. No. 2 carries the gun to the position by crawling. He lies down on the left of the tripod with his head to the front and, assisted by No. 1, places the gun on the tripod. No. 1 inserts the trunnion pin and No. 2 the elevating pin. No. 3 crawls up with the ammunition and water boxes. When the gun is mounted, No. 1 lies down on the right of the tripod, feet to the front, left leg crossed over the right, with his head and shoulders supported by the legs of No. 2. The right leg of No. 2 is doubled up to give support to the neck of No. 1 at the proper height. When the gun is mounted the shoes themselves and not the tubular por-

tion of the legs and trail rest on the ground and the bottom of the socket is at least 1 inch from the ground. (See fig. 26.)

173. To dismount the gun from low position.—The gun is dismounted at the position of mounting in the manner prescribed for elementary gun drill.

174. To mount the gun on sloping ground.—*a.* Throughout this drill the squad is taught to mount the gun on varying slopes, engaging targets up hill, down hill, and to the right and left along the slope of the hill. The gun is not mounted until reasonable progress has been made in mounting the tripod. All men are trained to mount the tripod on any kind of ground.



FIGURE 26.—The gun mounted in low position.

b. The gun position having been designated on sloping ground, the corporal commands: **MOUNT GUN**. At this command the gun is mounted as previously described with the following exception: The trail is pointed down hill on a steep slope regardless of the direction in which the gun is to be laid. Nos. 1 and 2 take positions adapted to the ground. No. 3 performs the usual duties. (See figs. 27 and 28.)

175. To lay the gun.—The gun being mounted in any position, loaded or loading being simulated, the commands are: 1. *Range 800 (850)*, 2. *Deflection two (three) right (left)* (deflection may or may not be given), 3. **TARGET THAT SQUARE** (or such target as may be designated).

a. At the first command, No. 1 raises the rear sight leaf and moves the slide until it is set at the line on the leaf corresponding to the range given. At the second command No. 1 sets the deflection on the wind gage and at the third command traverses

the gun until the correct direction is obtained, after which he elevates or depresses the muzzle until the aim is correct.

b. With the M1917 tripod, whenever a fairly large change of direction is necessary, No. 2 loosens the traversing clamp at the



FIGURE 27.—Guns mounted for firing down hill.



FIGURE 28.—Gun mounted for firing along a slope.

third command. No. 1 then swings approximately on the target, No. 2 tightens the traversing clamp, and No. 1 lays accurately on the target by tapping.

c. When the panoramic sight is used as a telescopic sight for direct fire, at the first command No. 1 sets the zero of the

site ring at the range ordered and turns the range wheel until the zero of the site ring is opposite its index. At the second command No. 1 sets the deflection on the azimuth wheel and at the third command he traverses and elevates or depresses the gun until the line of aim through the instrument is on the target. During firing, before checking the laying, it must be seen that the settings of the panoramic sight in elevation and direction are not moved.

176. To go into action.—The steam-condensing device attached to the gun is required in this drill. When the gun is mounted, the steam-condensing device is connected with the water box. The corporal first announces the range and designates the target. At the command or signal **Action**, the gun is mounted, loaded or loading simulated, sights are set, and the gun is laid. As soon as No. 2 signals "Ready," the aim and the sight setting are checked. The various points taught in the earlier lessons are criticized. Each man performs the duties laid down for him in the earlier lessons.

177. To take the gun out of action.—The methods of taking the gun out of action are explained and practiced. The method to be employed in any particular case depends upon circumstances. The corporal determines which method to use. Unless otherwise prescribed, No. 3 performs his usual duties in dismounting the gun.

a. When the gun is in action and cover is too far away to permit the mounted gun being dragged the whole distance, the gun is unloaded and dismounted at the position, each man carrying his own load to the designated point. If the equipment is to be carried a considerable distance the command **March order** is given after the command **Out of action**. If No. 3 is not required, Nos. 1 and 2 carry the ammunition and water boxes. For instructions in this method the corporal gives the command **No cover available**, before giving the command **Out of action**.

b. When the gun can be dragged to cover before it is dismounted, it is unloaded but the belt is left in the feedway. Then the gun is dragged back to the cover where dismounting is completed. For instruction in this method, the corporal gives the command **Cover close behind**, before giving the command **Out of action**.

c. When cover is too far away to permit dragging the gun to cover but close enough to avoid the necessity of dismounting in the open, either of two methods may be used; the two-man load or the three-man load. The procedure prescribed for the two and three man loads are taught, but the squad is informed that there are variations which may be preferred by individuals. Speed is the end to be obtained in all cases. For instruction in these methods, the corporal gives the command *Two-man load* or *Three-man load* before the command *Out of action*. He points out where the cover is supposed to exist.



FIGURE 29.—Three-man load.

(1) With the two-man load the gun is unloaded by Nos. 1 and 2 and the ammunition box is then attached to the tripod. No. 1 rises and seizes the trail with his left hand and the right leg with his right hand. No. 2 rises and seizes the left leg with his left hand and the water box with his right hand.

(2) If the distance to the cover is great the three-man load is generally preferable. No. 3 is signaled forward. No. 1 rises and seizes the trail with his right hand. No. 2 seizes the left leg with his left hand and the water box with his right hand. No. 3 seizes the right leg with his right hand. (See fig. 29.)

178. To commence firing.—The gun being laid on the designated target and loaded or the loading being simulated, the corporal commands: 1. *(So many) rounds per minute, bursts of (so many)*, 2. **COMMENCE FIRING**. At the second command No. 2 taps No. 1 on the back and calls, "Fire." No. 1 instantly pulls the trigger. The rate of fire and the size of bursts ordered are fired or simulated. The eyes are directed at the target. Any tendency to look down at the trigger or elevating hand-wheel or through the sights while firing must be corrected. To change the rate of fire, the corporal signals, "Fire faster" or "Fire slower," until the gun is firing at the rate desired. At the first opportunity the command is given for a new rate of fire.

179. To cease firing.—The corporal blows a long blast on the whistle and commands or signals: **CEASE FIRING**. No. 2 taps No. 1 lightly on the back and calls, "Cease firing." No. 1 releases the trigger and the gun is held, loaded, in a position of readiness for the instant resumption of fire. No. 1 checks his aim and corrects, if necessary, his laying. He continues his observation of the target, the aiming point, the place at which the target disappeared, or the place at which it is expected to reappear. When fire is not to be resumed for some time, the command *Unload* or *Clear gun* follows the command *Cease firing*.

180. To traverse.—*a.* The gun being laid for direct fire on the designated target and loaded, or loading being simulated, the corporal commands: 1. *Traverse right (left)*, 2. *(So many) rounds per minute, bursts of (so many)*, 3. **COMMENCE FIRING**.

(1) At the third command No. 1 fires or simulates firing and after each burst traverses 2 mils by tapping (M1917 tripod) or by turning the traversing handwheel (M1917A1 tripod), until the target assigned is crossed. He then traverses back across the target by the same method.

(2) If the width of the target is known and the gun is laid on one flank of the target, the corporal may command: 1. *Traverse right (left) 30*, 2. *(So many) rounds per minute, bursts of (so many)*, 3. **COMMENCE FIRING**.

(a) With the M1917 tripod, at the first command No. 1 or No. 2 may set one of the traversing stops where the gun is laid

and the other at the limit of the traverse. At the third command No. 1 fires and traverses by tapping within the limits the traversing stops. If it is not desired to use the traversing stops, the number of taps across and back may be counted.

(b) Using the M1917A1 tripod, at the first command No. 1 sets the zero of the small traversing dial on the traversing handwheel at the index if the gun is to be traversed to the right, then turns the wheel to the left, 2 mils to a burst, until 30 is opposite the index. If the gun is to be traversed to the left, No. 1 sets 30 on the small traversing dial at the index and then turns the wheel to the right, 2 mils to a burst, until the zero is opposite the index. Small traverses may be made by counting clicks.

b. The gun being laid for indirect fire on the designated target loaded, or the loading being simulated, the corporal commands: 1. *Traverse right (left) 30*, 2. *(So many) rounds per minute bursts of (so many)*, 3. **COMMENCE FIRING**.

(1) Using the M1917 tripod, at the first command the corporal loosens the traversing clamp and turns the gun 15 mils to each side of the line of aim, reading the angles on the traversing dial. Nos. 1 and 2 set the traversing stops under the corporal's direction. At the third command No. 1 fires and after each burst traverses right or left 2 mils, so as to distribute the fire within the limits of the traverse.

(2) Using the M1917A1 tripod, No. 1 sets the small traversing dial at 15 and traverses back and forth 2 mils to each burst between the limits 0 to 30. Small traverses may be made by counting clicks.

c. The gun being laid on the designated target loaded, or the loading being simulated, the corporal commands: 1. *Swinging traverse*, 2. **COMMENCE FIRING**. At the first command, the traversing clamp is loosened so that only a slight amount of friction remains. No. 1 clamps the grip with both hands, forearms resting on the thighs, body inclined slightly forward. The forearms and body have a certain amount of rigidity. At the second command, No. 1 fires continuously on the target, traversing the gun across the target by slowly moving the body opposite to the direction of traverse. A completely loose traversing clamp is not used and the traverse is not made by pushing the gun from side to side with the arms alone.

181. **To search.**—The gun being laid on the designated target loaded, or the loading being simulated, the corporal commands: 1. *Search up (down) 8 (10, 12), 2. (So many) rounds per minute, bursts of (so many), 3. COMMENCE FIRING.* At the third command No. 1 fires a burst, elevates 2 mils, and so on until he has elevated 8 mils. He then searches down, firing a burst after each depression of 2 mils until the original elevation or point of aim is reached. He thereafter searches up and down as long as the firing is continued. The elevation dial on the handwheel (M1917 tripod) may be used to check the amount of searching.

182. **To zero the dial.**—The gun being laid on the designated point, the corporal commands: **ZERO DIAL.**

a. When using the M1917 and M1917A1 tripods, the corporal unclamps the traversing dial, turns it until the zero of the dial is opposite the index, and then clamps the dial.

b. When using the panoramic sight, No. 1 sets the azimuth wheel at zero.

183. **To measure an angle.**—a. *Horizontal angles.*—The gun being laid on the designated point, with the traversing dial at zero, the corporal commands: 1. *Measure the angle right (left), 2. TO THAT STEEPLE* (or point desired).

(1) When using the M1917 and M1917A1 tripods, the corporal loosens the traversing clamp. No. 1 turns the gun until it is aimed at the designated point. The corporal tightens the clamp and announces the angle, giving the number of his gun, as, "No. 4, 2440 right (left)." If the angle to be measured is small, No. 1 traverses through it without the traversing clamp being loosened.

(2) When using the panoramic sight, No. 1 turns the sight by means of the azimuth plunger and azimuth wheel until the line of aim through the instrument is on the designated point. The corporal announces the angle. If the angle is small, No. 1 turns the sight through the angle by means of the azimuth wheel.

b. *Vertical angles.*—The gun being laid on any point, the corporal commands: 1. *Measure the angle up (down), 2. TO THAT CROSSROADS* (or point desired).

(1) No. 1 turns the elevating handwheel until the gun is aimed at the designated point, the corporal notes the angle

or depression by means of the dial or by counting clicks and announces it, together with the number of his gun, as "No. 4 10 mils up (down)."

(2) When using the panoramic sight, No. 1 turns the sight by means of the range wheel until the line of aim through the instrument is on the designated point. The corporal notes and announces the angle.

184. To lay off an angle.—*a. Horizontal angles.*—The gun being laid on the designated point, the corporal commands: **620 (640, 800) RIGHT (LEFT).**

(1) Using the M1917 and M1917A1 tripods, when the angle is right, the dial is zeroed, if not already set at zero. The corporal loosens the traversing clamp and turns the gun to the right until the index is opposite 620 on the traversing dial. He then tightens the traversing clamp. If the angle is left, the corporal sets 620 at the index without moving the gun and clamps the dial. The gun is then swung to the left in a similar manner until the index is opposite the zero of the traversing dial and the traversing clamp tightened. If the angle is small, No. 1 traverses through it without the traversing clamp being loosened.

(2) Using the panoramic sight, No. 1 turns the sight 620 mils to the left (right) (opposite to the direction in which the angle is to be laid off). Then the gun is turned until the line of aim through the instrument is alined on the original point of aim.

b. Vertical angles.—The gun being laid on the designated point, the corporal commands: **UP (DOWN) 5 (10, 17).**

(1) No. 1 turns the elevating handwheel until the gun has been elevated or depressed the required number of mils. The angle may be laid off by counting clicks or by noting the readings of the handwheel dial.

(2) Using the panoramic sight, No. 1 by means of the range wheel turns the sight the required number of mils down or up (in the opposite direction to that in which the angle is to be laid off). The gun is turned up (down) until the line of aim through the instrument is on the original point of aim.

185. To put out zero and aiming stakes.—The gun being pointed in the desired direction, the corporal commands: **ZERO (AIMING) STAKE OUT.** At this command No. 3, with zero

and aiming stakes and shovel, runs or crawls to the front of the gun any convenient distance, preferably not less than 10 meters. Under the direction of No. 1, he places the stake in the line of aim and drives it in the ground. No. 3 then runs or crawls back to his original position in rear of the gun. The zero stake having been put out, the gun may be laid on this point at any time by the command *On zero*. Aiming stakes are differentiated by color, shape, or some distinctive mark such as letter, number, or a string. To lay on any particular aiming stake, announce the stake, as, "On red stake (forked stake or No. 1)."

186. To put on quadrant elevation.—The gun being laid for direction, the corporal commands: *QE (QUADRANT ELEVATION) 20 (45, 80), or QE MINUS 10 (15, 20)*. At this command the corporal sets the clinometer at 20 mils. In the meantime No. 1 operates the elevating handwheel until the elevating screw threads are exposed about 1 inch (M1917 tripod), $\frac{3}{4}$ -inch (M1917A1 tripod), or the elevation index pointer is opposite zero (M1918 tripod). The corporal loosens the elevating clamping handle (M1917 and M1917A1 tripods) and, with the clinometer on the top of the receiver beside the cover latch and the arc of the clinometer to the rear for a plus quadrant elevation or to the front for a minus one, elevates or depresses the gun until the bubble is approximately centered. He then tightens the elevating handle and accurately centers the bubble by operating the elevating handwheel. No. 1 raises or lowers the rear sight slide and fixes the line of aim on any selected auxiliary aiming mark. If an aiming stake is used which was previously set it will usually be found that the allowance for drift on the sight leaf has caused an apparent movement of the line of aim to the right. This should be corrected by means of the wind gage and not by moving the gun. In laying on a new aiming mark, sights should again be set at 700 with the wind gage at zero.

187. To measure the quadrant elevation.—The gun being laid on the target, with correct sight setting, the corporal commands: *MEASURE QE*. At this command the corporal sets the clinometer on the gun with the arc to the rear if the muzzle is elevated, and with the arc to the front if the muzzle is depressed. Without disturbing the gun he then adjusts the plunger index and bubble holder index until the bubble is

centered. The corporal takes the reading and announces the QE, giving the number of his gun, as, "No. 2, QE 16 (minus 16)."

188. To determine the clearance of a mask.—The gun being laid to hit the target and the range to mask having been determined—

a. If the range to the mask is 540 yards or less the corporal commands: 1. **Mask clearance**, 2. **Range 450 (100, 250)**, 3. **That hill**, 4. **DOWN**, 2. No. 1 sets the sights as ordered, depresses the muzzle of the gun 2 mils and looks through the sights in the direction of the mask. If the line of aim is above the mask, he so informs the corporal who reports, "No. 2 (3), mask cleared" (or "not cleared," if the line of aim is below the mask). No. 1 then elevates the muzzle 2 mils to the original elevation.

b. If the range is over 540 yards the corporal commands: 1. **Mask clearance**, 2. **Range 650 (800, 950, announcing the sight setting 110 yards greater than the range to mask)**, 3. **THAT HILL**. No. 1 sets the sight as ordered and without moving the gun looks through the sights in the direction of the mask. He informs the corporal whether or not the line of aim is above the mask and the corporal reports as prescribed in *a* above.

189. To correct stoppages.—To maintain proficiency in the clearing of stoppages, prepared stoppages are introduced from time to time during advanced gun drills. The gun having been loaded with the required stoppages without the knowledge of No. 1, the corporal commands: **GUN STOPS FIRING**. At this command No. 1 applies the three phases of immediate action: reloads, relays, and resumes firing or simulated firing.

190. To inspect the gun during a temporary cessation of fire.—To teach the necessity of and form the habit of periodical oiling and examination of the gun and mount during firing, the corporal occasionally, throughout advanced gun drill, commands: **INSPECT GUN**. At this command No. 1 clears, inspects, and oils the gun, adjusts the tripod, tests the tightness of all clamps, verifies the settings of the rear sight of panoramic sight (if used) for elevation and deflection, and checks the laying. After No. 1 has cleared gun, No. 2 examines the muzzle gland and flash hider, sees that there is sufficient water in the water jacket and water box, cleans the bore, and inspects the

bolt, replacing it with a new one if necessary. The corporal supervises the examination and makes sure that there is a sufficient supply of ammunition, water, and oil at the gun. He directs the making of such repairs as may be necessary and verifies the sight setting or quadrant elevation. The gun is habitually inspected as often as necessary during prolonged firing, usually after each 1,000 rounds. Opportunities to verify and replace the supply of water in the water jacket between tasks in prolonged firing are always taken advantage of if any considerable number of rounds have been fired.

191. To maintain the supply of ammunition, water, oil, and spare parts.—Training in the supply of ammunition, water, oil, and spare parts is introduced from time to time during advanced gun drill. The gun being mounted and an ammunition point with an extra supply of ammunition, water, oil, and spare parts having been established, the corporal orders the squad to practice in the operation of the chain of supply. The following methods may be found convenient:

a. When the exercise is started, No. 4 brings ammunition to the position of No. 3, secures empty ammunition boxes and belts, and returns to the ammunition point for a new supply. Each succeeding number delivers his load as required to the position of No. 3, in a similar manner, and returns to the ammunition point for a new supply. As each number secures a new load he again approaches the position of No. 3, following the man who has preceded him away from the ammunition point. When the required supply is at the position of No. 3, all carriers take available cover.

b. If the distance to be covered is very short or if it is difficult for men to pass each other en route, as along a ditch leading to the gun position, boxes may be passed from hand to hand.

c. If the supply is to be maintained across an open space for a short distance, the supply may sometimes be kept up by dragging boxes which have been attached to an emergency rope. One end of the rope being at the gun position, No. 3 makes a loop in the center of the rope and passes it through the handle of an ammunition box, securing it with a stick. No. 2 then pulls the full box to the gun, attaches an empty, and No. 3 pulls it back.

SECTION XII

MACHINE-GUN SECTION

Caliber .30 (heavy) and caliber .50 (HB)

192. Organization.—The machine-gun section consists of a sergeant and two machine-gun squads.

193. Control.—*a. Section sergeant.*—The section sergeant is the leader and sets the direction, gait, and pace. He is posted in front of the leader of his base (left) squad. The leader of the base squad follows the section leader at 3 yards distance.

b. Guide.—The base squad is the guide of the section. The section leader may place himself in front of the squad leader of either squad, which then becomes the base.

194. Formations.—The following are the formations of the machine-gun section:

a. Line.—In this formation the two squads are abreast, each squad in column, with an interval of 10 yards between squads.

b. Column (twos or troopers).—In this formation the squads, each in column (twos or troopers), are disposed one behind the other with 4 feet distance.

c. Line of squads.—In this formation the squads, in the prescribed formation, are disposed abreast of each other at the interval prescribed in the command.

d. Column of squads.—In this formation the squads, in any prescribed formation, are disposed one in rear of the other at the distance prescribed in the command.

195. To form the section.—*a.* The section is habitually formed in line.

(1) The section leader commands: **SADDLE, HARNESS, PACK** (or **SADDLE, HARNESS**) **AND LEAD OUT**. At this command the squad leaders take charge of their squads and cause them to saddle, harness, and pack (or saddle and harness) and lead out.

(2) When the squads have led out, the section leader, mounted, facing the position where he wishes the section to form, commands: **FORM SECTION**. The squad leader of the base (left) squad, mounted, stations himself 3 yards from the section leader and facing him. The squad leader executes *left about* and commands: **LEAD INTO COLUMN**. When the

squad is formed, he faces to the front. The other squad is formed in a similar manner, on line with and to the right of the base squad, with an interval of 10 yards.

(3) The section leader commands: **REPORT**. Each squad leader in turn, commencing from the right, salutes and reports, "(Such) squad present," or "(So-and-so) absent." The section leader returns the salute of each squad leader.

b. The section may be formed in column by the command **Form section in column**.

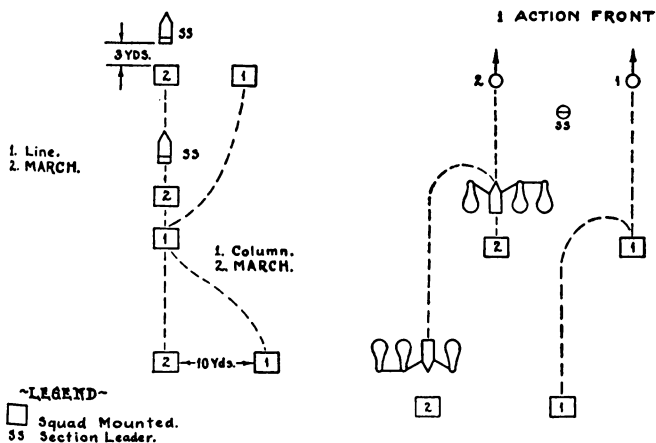


FIGURE 30.—Line, column, and action front.

196. **To dismiss the section.**—The section leader commands: **UNPACK, UNHARNESS, AND UNSADDLE** (or **UNHARNESS AND UNSADDLE**). At this command the squad leaders take charge of their squads and cause them to unpack, unharness, and unsaddle (or unharness and unsaddle).

197. **Movements corresponding to squad movements.**—The section **mounts, dismounts, links in couples, executes the march to the front, route order, the halt, the change of direction if in column, column of twos, column of troopers, the oblique by troopers, and the march to a flank** by the same commands and means that are prescribed for the squad, substituting where necessary the word "section" for "squad."

198. Being in column, to form line.—*a.* The commands are: 1. **Line**, 2. **MARCH**. The base squad moves straight to the front at the gait of march or the gait ordered. The other squad executes **column half right** at the increased gait and when it has gained its interval of 10 yards from the base squad executes **column half left**, moves up on line with the base squad and takes the gait of the latter.

b. Line may be formed directly to a flank by the commands: 1. **Squads, column right (left)**, 2. **MARCH**. At the command **March**, the squads execute a **column right (left)**. The interval between squads is maintained and the right (left) squad guides on the base.

199. Being in line, to change direction.—*a.* The change of direction is only a special case of the march in line. The leader conducts the section in the new direction. The base squad follows in trace of the section leader and changes direction on the same ground. The other squad, by inclining to the right or left, as the case may be, and increasing or decreasing its gait while maintaining its interval, conforms to the movements of the base squad. On completing the turn, the leader indicates the new direction.

(1) The direction may be changed 90° by the commands: 1. **Right (left) turn**, 2. **MARCH**.

(2) A change of direction of 45° is similarly executed at the commands: 1. **Right (left) half turn**, 2. **MARCH**.

(3) To make a slight change of direction, the command is: **INCLINE TO THE RIGHT (LEFT)**.

b. The change of direction by formal command **Right turn, right half turn, incline to the right**, is ordinarily used only when the section leader, having given the command **Disregard**, is not actually leading the section, but is instructing or commanding it from some position other than his normal position as leader.

200. Being in line, to form column.—The commands are: 1. **Column**, 2. **MARCH**. The base squad moves at the gait of march or the gait ordered straight to the front. The other squad executes **column half left**, and is conducted by its leader (who decreases the gait, if necessary) to its place in column behind the base squad, following the base squad at 4 feet distance.

201. To march to the rear.—The commands are: 1. *Threes left about*, 2. *MARCH*, or 1. *Squads to the rear*, 2. *MARCH*. Each three executes *left about*, or each squad executes *column left about*, as prescribed in section VIII.

202. To oblique by heads of columns.—The commands are: 1. *Squads, column half right (left)*, 2. *MARCH*. Each squad executes *column half right (left)*. This movement is used to gain ground for short distances in an oblique direction.

203. To extend the section laterally.—*a*. The commands are: 1. *Line of squads*, 2. *At (so many) yards interval*, 3. *MARCH*.

(1) The base squad follows the section leader or moves straight to the front at the gait of march. The other squad is conducted by its leader, at the increased gait, to its place on line with the base squad at the interval ordered. If the movement is executed from line and the section leader desires the extension made to the left, he places himself in front of the right squad or otherwise indicates that squad as the base. If the movement is executed from any column formation, the rear squad moves to the right unless squad No. 1 is in front, in which case the rear squad moves to the left.

(2) The squad other than the base conforms to the gait and formation of the base squad. In order to pass obstacles, avoid observation, or reduce losses, the squad leader may order, temporarily, any suitable formation or gaits.

b. The section leader may prescribe a route or objective for each squad. For example, he commands: 1. *Line of squads*, 2. *First squad move up that draw* (pointing), 3. *Second squad follow the edge of those woods* (pointing) *and halt this side of the clearing* (pointing), 4. *I will be with the first squad*, 5. *MOVE OUT*. This movement is useful in passing obstacles and in crossing fireswept areas.

204. To extend the section in depth.—*a*. The commands are: 1. *Column of squads*, 2. *At (so many) yards distance*, 3. *MARCH*. The base squad follows the section leader or moves straight to the front at the gait of march. The other squad is led into position behind the base squad and follows it at the distance ordered, conforming to the gait and formation of the base squad.

b. The section leader may designate a point of assembly before moving out. For example, he commands: 1. *Column of*

squads at (so many) yards distance, 2. Assemble this side of that crest in that clump of trees (pointing), 3. I will be with the second squad, 4. MOVE OUT. This movement is useful in passing obstacles and in crossing fire-swept areas. It may be used to effect a deployment in depth in going into action.

205. To assemble the section.—*a.* The section being extended laterally or in depth, to assemble the section, the commands are: 1. **Assemble**, 2. **MARCH**. At this command the normal formation (line) is resumed.

b. If it is desired to assemble the section in column, the commands are: 1. **Assemble in column**, 2. **MARCH**.

c. The assembly is normally executed at the trot.

206. To fight on foot.—*a.* Rapidity of going into action and opening fire is a primary consideration. In this action the section leader commands: **ACTION FRONT (RIGHT, LEFT, REAR)**. He then dismounts and links his horse to the left side of the horse of No. 2 of the base squad. If marching in column, at the command **Action front**, the gun of the leading squad is mounted in the immediate vicinity of pack horse No. 1. The squad leader of the rear squad moves into line or echelon right, according to the nature of the terrain, and executes **action front**. If **action rear** is given from column, the rear squad moves into formation in line and both squads execute **action rear**. In **action right (left)** from column, the guns are mounted in the immediate vicinity of pack animals No. 1 and facing in the direction ordered. A designated horseholder conducts the pack horses to cover.

b. If in line and it is desirable to execute **action** to a flank, the command is: **ACTION RIGHT (LEFT)**. The squad on the flank toward the action immediately executes **action** in the direction indicated. The other squad moves up to the left (or right) of the base squad and executes **action front**.

207. To go out of action.—*a.* The section leader commands: **OUT OF ACTION**. If he desires to pack the equipment on the pack animals, he commands, at the proper time: **PACK**. Each squad leader repeats the commands and causes the gun and equipment of his squad to be moved back by hand to the position of the led animals. If necessary to go out of action very rapidly, the section leader omits the command **Out of action**.

and commands: **PACK**, in which case the animals are brought forward at a rapid gait and packed at or near the gun position.

b. When the packing is completed, all not already mounted, mount without command.

SECTION XIII

MACHINE-GUN PLATOON

Caliber .30 (heavy) and caliber .50 (HB)

208. Organization.—The machine-gun platoon consists of a platoon headquarters and two sections. The platoon headquarters consists of a platoon leader, a platoon sergeant, and two messengers.

209. Control.—*a. Platoon leader.*—The lieutenant or, in his absence, the platoon sergeant, is the platoon leader and sets the direction, gait, and pace. He is posted 3 yards in front of the leader of his base (right) section.

b. Guide.—The leader of the base section follows the platoon leader at 3 yards distance. The base section is the guide of the platoon. The platoon leader may place himself in front of the section leader of either section, which then becomes the base.

c. Platoon sergeant and messengers.—The platoon sergeant and the messengers are posted, with the sergeant on the right, 4 feet in rear of the right squad of the section which is not the base section. In case of necessity, the platoon sergeant goes wherever his presence may be necessary to correct mistakes and to keep the squads closed up.

d. Positions.—The positions of the platoon leader and members of platoon headquarters are the same in all formations of the platoon except at route order in the field when the messengers take post 4 feet in rear of the platoon leader.

210. Formations.—*a.* The following are the formations of the platoon:

(1) *Line.*—In this formation the sections, in line, are abreast of each other with an interval of 10 yards.

(2) *Column (twos or troopers).*—In this formation the sections in column (twos or troopers) are one behind the other at the distance of 4 feet.

(3) *Line of sections*.—In this formation the sections in an prescribed formation are abreast of each other with the interval prescribed in the command.

(4) *Column of sections*.—In this formation the sections in any prescribed formation are one behind the other at the distance prescribed in the command.

b. In platoon drill, any formation can be taken from any other.

211. To form the platoon.—*a*. The platoon is habitually formed in line. The platoon sergeant commands: **SADDLE HARNESS, PACK, AND LEAD OUT** (or **SADDLE, HARNESS AND LEAD OUT**). At this command the section leaders take charge of their sections and cause them to saddle, harness, and pack (or saddle and harness) and lead out of the corral. When the sections have led out, the platoon sergeant, mounted, faces the position where he wishes the left squad of the right section to form and commands: **FORM PLATOON**. The section leader of the base (right) section, mounted, stations himself 3 yards from the platoon sergeant and facing him. The section leader executes *left about* and commands: **FORM SECTION**. When the section is formed, he faces to the front. The other section is formed in a similar manner on the left of the base section, on line with, and at an interval of 10 yards from, the latter. The platoon sergeant then commands: **REPORT**. Each section leader in turn, commencing from the right, salutes and reports, "(Such) section present," or "(So-and-so) absent," and takes post on the right of the leader of the base squad. The platoon sergeant returns the salute of each section leader, faces about, salutes, and reports to the platoon leader, "Sir, the platoon is present or accounted for," or "Sir, (so-and-so) absent." When no verification is required the report is "Sir, the platoon is formed." During the formation the platoon leader takes post, mounted, 3 yards behind the platoon sergeant. When the platoon sergeant has reported, the platoon sergeant and messengers take their posts.

b. The platoon may be formed in column by the command: **FORM PLATOON IN COLUMN**. The only difference from *a* above is that the sections are formed in column with the section leader of the second section 3 yards in rear of the first section.

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After the reports have been made the rear section closes, without command, to 4 feet distance.

212. Movements corresponding to section and squad movements.—The platoon executes the following movements by the same commands and means that are prescribed for the section or the squad, substituting the necessary word "platoon" for "section" or "squad."

To mount.

To dismount.

To link in couples.

To march to the front.

To change direction if in column, column of twos, column of troopers.

To oblique by trooper.

To march to a flank.

To form flock.

213. Being in line, to change direction.—The change of direction is only a special case of the march in line. The leader conducts the platoon in the new direction. The base section follows in trace of the platoon leader and changes direction on the same ground. The other section, by inclining to the right (or left) and by increasing or decreasing its gait while maintaining its interval, conforms to the movements of the base section. On completing the turn, the leader indicates the new direction.

a. The direction is changed 90° at the commands: 1. **Right (left) turn**, 2. **MARCH**.

b. A change of direction of 45° is similarly executed at the commands: 1. **Right (left) half turn**, 2. **MARCH**.

c. To make a slight change of direction: **INCLINE TO THE RIGHT (LEFT)**.

d. The change of direction by formal command: 1. **Right turn, right half turn**, 2. **INCLINE TO THE RIGHT** is ordinarily used only when the platoon leader, having given the command **Disregard**, is not actually leading the platoon but is instructing or commanding it from some position other than his normal position as leader.

214. Being in line, to form column.—The commands are: 1. **Column**, 2. **MARCH**. The base section forms column and

moves at the gait of march straight to the front. The o section forms column, executes *column half right* (or *column half left*) and is conducted by its leader, who decreases gait, if necessary, to its place in column behind the base section and follows the base section at 4 feet distance.

215. Being in column, to form line.—The commands are: 1. *Line*, 2. *MARCH*. The base section forms line and moves straight to the front at the gait of march. The rear section executes *column half left* at an increased gait and resumes march to the front so as to have its interval of 10 yards when it has formed line. When the leader is abreast of the leader of the base section, he takes the gait of the latter and then forms his section in line.

216. Route order.—The command is: *ROUTE ORDER*.
a. *In garrison*.—*Route order* is executed the same as in the section.

b. *In the field*.—(1) Being in column (threes), the section leader of the leading section moves up on the left of the platoon leader, the two messengers move up and form a two in rear, the two squad leaders of the leading section form the next two, and the squad leader of the rear squad drops back to a position on the right of the platoon sergeant. All close to 4 feet distance.

(2) Being in column of twos, the section sergeant of the leading section takes post on the left of the platoon leader, the two messengers form a two in rear of them, and the section leader of the rear section takes position on the right of the platoon sergeant at the rear of the platoon. All close to 4 feet distance.

(3) If marching in column of troopers, the two messengers move to position in rear of the platoon leader.

217. To march to the rear.—The commands are: 1. *Threes left about*, 2. *MARCH*; or 1. *Squads to the rear*, 2. *MARCH*; or 1. *Sections to the rear*, 2. *MARCH*. Each three executes *left about*, each squad or section executes *column left about*, according to the unit indicated in the command. To march again in the original direction, the same commands should be used.

218. To oblique by heads of columns.—The commands are: 1. *Squads (sections) column half right (left)*, 2. *MARCH*.

Age Group	1970	1980	1990	2000	2010	2020
0-14	25	22	20	18	15	10
15-24	15	16	17	18	19	20
25-34	15	16	17	18	19	20
35-44	15	16	17	18	19	20
45-54	15	16	17	18	19	20
55-64	15	16	17	18	19	20
65+	15	16	17	18	19	20

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

[illegible]

1000

[illegible]

1

15

Each squad (or section) executes *column half right (left)*. This movement is used to gain ground for short distances in an oblique direction.

219. To extend the platoon laterally.—The commands are: 1. *Line of squads (sections)*, 2. *At (so many) yards interval*, 3. *MARCH*. The base section executes the movement and follows the platoon leader or moves straight to the front at the gait of march. The other section is conducted by its leader, at an increased gait, to its place on line with the base section and at the interval ordered.

a. If the movement is executed from line and the platoon leader desires the extension made to the right, he places himself in front of the left section or otherwise indicates that section as the base.

b. If the movement is executed from column, the second section habitually moves to the left.

c. The section other than the base conforms to the gait and formation of the base section. It takes any gait or formation which may be ordered by its leader in order to pass obstacles, avoid observation, or reduce losses.

d. The platoon leader may prescribe a route or objective for each squad. For example, he may command: 1. *Line of squads (sections)*, 2. *First squad (section) move up that draw* (pointing), 3. *Second squad (section) follow the edge of those woods* (pointing) and *halt this side of the clearing* (pointing), 4. *I will be with the first squad (section)*, 5. *MOVE OUT*. This movement is useful in crossing a fire-swept crest or area.

220. To extend the platoon in depth.—a. The commands are: 1. *Column of squads (sections)*, 2. *At (so many) yards distance*, 3. *MARCH*. The base squad (section) follows the platoon leader or moves straight to the front at the gait of march. The other squads (sections) remain at the halt, maintain the gait of march, or decrease the gait and place themselves in position behind the base squad (section) at the distance ordered. The rear squads (sections) conform to the gait and formation of the base squad (section) or take any gait or formation which may be ordered by their leaders in order to pass obstacles, avoid observation, or reduce losses.

b. The platoon leader may designate a point of assembly before moving out. For example, he may command: 1. *Column*

of squads (sections) at (so many) yards distance, 2. Assemble this side of that crest in that clump of trees (pointing), 3. will be with the second squad (section), 4. MOVE OUT.

c. This movement is useful in passing obstacles and in crossing fire-swept areas. It may also be used to effect a deployment of guns in depth in going into action.

221. To assemble the platoon.—The platoon being extended laterally or in depth, to assemble the platoon the commands are **1. Assemble, 2. MARCH.** At this command the normal formation (line) is resumed. If it is desired to assemble the platoon in column, the commands are: **1. Assemble in column, 2. MARCH.** The assembly is normally executed at the trot.

222. To fight on foot.—Rapidity of going into action and opening fire is a primary consideration. The platoon leader commands: **ACTION FRONT (RIGHT, LEFT, REAR).**

a. If marching in column, at the command **Action front**, the guns of the leading section are mounted as described for the machine-gun section. The section leader of the rear section moves into line or echelon left, according to the nature of the terrain, and executes **action front**. If **action rear** is ordered from column, the rear section moves into formation in line and both sections then execute **action rear**. In **action right** or **left from column**, the guns are mounted in the immediate vicinity of pack animals Nos. 1 and facing in the direction ordered. In **action** from any formation, the platoon leader and one messenger dismount at the positions of the guns. The platoon sergeant conducts the pack horses to cover in the direction opposite to that in which the guns are mounted and faces them toward the guns.

b. If in line, to execute **action** to a flank, the command is: **ACTION RIGHT (LEFT).** The section on that flank immediately executes **action** in the direction indicated. The other section moves up on its left (or right) and executes **action front**.

223. To go out of action.—The platoon leader gives the command: **OUT OF ACTION.** If he desires to pack the equipment on the pack animals, he commands, at the proper time: **PACK.** Each section leader repeats the commands and causes the guns and equipment of his section to be moved back by hand to the position of the led animals. If necessary to go out of action very rapidly, the platoon leader omits the command

Out of action and commands: **PACK**, in which case the led animals are brought forward at a rapid gait and packed at or near the gun position. Each section packs its equipment on the pack animals and mounts. The platoon leader and messenger mount.

SECTION XIV

37-MM GUN SQUAD

224. Organization.—The organization of the 37-mm gun squad is the same as the machine-gun squad (sec. VIII) with the following exceptions:

a. Pack horse No. 1 carries the gun carriage (modified) on the right side, the gun and cradle on the left side, and the spare parts roll as a top load.

b. Pack horses Nos. 2 and 3 carry ammunition in chests and in addition No. 2 carries the rammer staff as a top load.

225. Formations and movements.—The 37-mm gun squad forms and maneuvers by the same commands and in the same manner as the machine-gun squad. (See sec. VIII.)

226. To fight on foot.—This is the same as for the caliber 30 (heavy) machine-gun squad except that No. 3 dismounts with Nos. 1 and 2, unpacks only one ammunition chest and the rammer staff, places them near the carriage, and then takes his position in rear of the gun. The spare parts roll is not unpacked unless required.

227. To go out of action.—This is the same as for the caliber 30 (heavy) machine-gun squad except that No. 3 packs the ammunition and rammer staff on pack animal No. 2 and ammunition on pack animal No. 3. Loads on ammunition pack animals must be as nearly balanced as practicable.

SECTION XV

ELEMENTARY GUN DRILL, 37-MM GUN

228. Purpose.—The purpose of elementary gun drill is to teach the duties of Nos. 1, 2, and 3, in mounting and dismounting, loading and unloading the gun, and in the development of accuracy and speed.

229. Composition of the squad for gun drill.—a. The squad for gun drill consists of one corporal and five privates, with

squad equipment, less saddle and pack equipment, side arms and the 37-mm gun sights.

b. The corporal commands the squad; No. 1 is the gunner; No. 2 the assistant gunner; No. 3 the ammunition carrier; Nos. 4 and 5 function as additional ammunition carriers.

230. Equipment required.—The following equipment is required for elementary gun drill:

a. 37-mm gun carriage, M1916A2.

b. 37-mm gun.

c. Ammunition chest with packing strip and two rounds dummy ammunition.

d. Target.

e. Elementary gun drill will be habitually done in fatigue uniform. Leather gloves will be worn.

231. To secure equipment.—a. The squads being in any formation or not formed, the command is: **SECURE EQUIPMENT FOR ELEMENTARY GUN DRILL**. At this command the men fall out and obtain equipment as follows:

(1) No. 1, gun carriage.

(2) No. 2, 37-mm gun.

(3) No. 3, ammunition chest with packing strip and two rounds dummy ammunition.

(4) No. 4, target.

b. After the equipment is secured, the squad assembles without command in the original formation, or as ordered.

232. To lay out equipment.—The squad being in any formation, the command is: **LAY OUT EQUIPMENT FOR ELEMENTARY GUN DRILL**. At this command equipment is laid out as follows:

a. 37-mm gun, muzzle to the front, sight bracket down, breech open, at the position designated by the instructor.

b. Carriage, trail spades to the rear, points down, three paces to the left of and on line with the 37-mm gun.

c. Ammunition chest, latch up and to the front, three paces in rear of the center of the interval between gun and tripod.

d. Target at any convenient distance in front of the tripod as designated by the instructor.

233. To form for elementary gun drill.—The squad leader places himself three paces in front of where the center of the

squad is to be and commands: 1. *Form for elementary gun drill*, 2. *FALL IN*.

a. At this command men assemble at attention as follows:

- (1) No. 1, three paces from the corporal, facing him.
- (2) No. 2, on the left of, and on line with No. 1.
- (3) No. 3, on the left of, and on line with No. 2.
- (4) Nos. 4 and 5, covering off Nos. 2 and 1, respectively, at 10 inches distance.

b. In forming the squad, each man excepting the right file, executes *right dress*, dropping his left hand after obtaining his interval, and dressing.

c. The squad leader then commands: *CALL OFF*. At this command all men call off their numerical designation successively, commencing with No. 1.

d. After the squad is formed, and numbers called off, the squad leader cautions No. 1 to repeat all commands.

e. For precision drill, the post of the corporal, equipment having been laid out, is two paces in rear of the ammunition chest, facing the rear.

234. To post the 37-mm gun squad.—*a.* The squad being formed after having laid out equipment for the elementary gun drill, the command is: *POSTS*. At this command, Nos. 1, 2, and 3 move at a run and take prone positions as follows:

- (1) No. 1 on the right of the carriage.
- (2) No. 2 on the right of the gun.
- (3) No. 3 on the right of the ammunition chest.
- (4) Nos. 4 and 5 stand fast, unless otherwise directed. Except for precision drill, they may be called up to a convenient position near the gun to observe the drill.

b. The gun being mounted and the numbers having left the gun, the command is: *POSTS*. At this command, all numbers take their regular position.

235. To stand clear of the gun or gun equipment.—The equipment being laid out or the gun mounted, the command is: *STAND CLEAR*. At this command all numbers at the gun equipment step back three paces without disturbing the equipment and resume the position of the soldier at attention.

236. To change numbers and duties in the squad.—The squad being in any formation, the command is: *FALL OUT ONE (TWO, THREE, ETC.)*.

a. At this command No. 1 takes position of the last number of the squad. No. 2 calls out, "One," moves over to the position of No. 1, and immediately assumes his duties. No. 3 calls out, "Two," moves over to the position of No. 2, and immediately assumes his duties. No. 4 calls out "Three," moves over to the position of No. 3, and immediately assumes his duties. No. 5 calls out, "Four," and moves to the position of No. 4.

b. When a number other than No. 1 is directed to fall out he takes the position of the last number of the squad. Numbers following the designated number call out their new numbers, move to their new positions and immediately assume their corresponding duties. All numbers preceding the designated number retain their number and duty.

c. This change of numbers and duties in elementary gun drill is to train all members of the squad in the duties of Nos. 1, 2, and 3. In the early stages of this drill, the command to fall out any number is given only after the completion of the next preceding command. After the squad is familiar with the duties of Nos. 1, 2, and 3, it may be given at any time.

237. To examine gun and equipment.—The equipment being laid out for elementary gun drill, the command is: **EXAMINE EQUIPMENT.**

a. At this command each man examines the gun equipment as described below:

(1) No. 1 examines the carriage and sees that—

(a) Trails are closely folded.

(b) Traversing screw nut is at the midpoint of the traversing screw and the flat side is against the right trail.

(c) Trunnion bearing wing nuts are completely rotated to the forward position.

(d) Elevation screw handwheel clears the top of the trails by 1 inch.

(2) No. 2 examines the gun and sees that—

(a) Muzzle is pointed to the front.

(b) Barrel is clear.

(c) Filling plug and drain plug are screwed in.

(d) Firing mechanism is cocked.

(e) Sight clamp is loosened.

(f) Breech is open, and the breechlock free to rotate.

(g) Trigger is free.

(h) Barrel is completely returned to battery.

(i) All movable parts are clean and lightly oiled.

(3) No. 3 examines the ammunition chest and sees that—

(a) Cover of the chest is to the front, latch up.

(b) Cartridges are inserted in the packing strip, points down.

(c) Cartridges and packing strip are clean and dry, and properly inserted in the chest.

b. Upon completion of this examination of equipment, No. 3 reports, "Ammunition correct" (or otherwise); No. 2 reports, "Gun and ammunition correct" (or otherwise); No. 1 reports, "All correct" (or otherwise). Examination of equipment is habitual before and after each drill.

238. To mount the carriage.—The position at which the carriage is to be mounted having been designated, the command is: **MOUNT CARRIAGE.** At this command No. 1 grasps the left trail with his left hand, steadies the carriage with his right hand, and moves at a run to the designated position. He places the carriage on the ground, pintle to the front, and kneels on both knees on the left side, facing it. He grasps the right trail in the right hand, the left trail in the left, and lifting both until the points of the rear spades clear the ground, smartly opens the trails to the full extent. He swings the traversing screw forward, engaging the traversing screw nut in the fork of the elevating nut bracket and frame. With his left hand on the handle of the traversing screw handwheel, he assembles the traversing screw to the traversing handwheel shaft. In making this assembly, the traversing handwheel handle is at the lowest position, the stud near the end of the traversing screw is engaged in its corresponding recess in the traversing handwheel shaft, then the traversing screw locking collar rotated forward, securely locking this joint. Compressing the extension trail lock handle of the right trail, he pulls out the right extension trail. Compressing the extension trail lock handle of the left trail, he pulls out the left extension trail. The gunner then lines up the elevating screw clutch, opening to the rear, so that it may be assembled to the elevating screw latch on the gun, assuming a prone position along the left trail.

239. To dismount the carriage.—The carriage being mounted, the command is: **DISMOUNT CARRIAGE.** At this command

No. 1, in general, reverses the procedure described in paragraph 238. He releases his grasp on the elevating screw clutch. Compressing the extension trail lock handle of the left trail, he shoves the left extension fully home. Compressing the handle of the right extension trail lock, he shoves the right extension fully home. Maintaining his grip on the traversing handwheel handle with the left hand, with the right hand he rotates the traversing screw locking collar to the rear and swings the **free end of the traversing screw** backward until it is against the right trail. He insures that the flat side of the traversing screw nut is against the trail. Using both hands, he closes the trails. He then picks up the carriage as previously described, turns sharply about to the left, moves at a run to the original position, turns sharply about to the left, places the carriage on the ground, pintle to the front, and resumes the prone position on its left.

240. To mount the gun.—At the command *Mount gun*, the carriage is first mounted as previously described.

a. As soon as the carriage is nearly in position, No. 2 grasps the barrel just in rear of the muzzle with his right hand, back of the hand up, and inserts three fingers of his left hand into the breech recess of the breechblock, lifting the barrel and recoil mechanism, and moves at a run to the right side of the tripod. He then inserts the trunnions of the gun in the recesses provided for them in the pintle. This is rendered much easier if the muzzle of the gun is lowered from the horizontal, and the trunnions slid along the ramp which forms the top of the pintle, from rear to front. Also, due to the weight of the gun and recoil mechanism assembly, the preferable method of handling it is to have the feet well spread apart, knees straight, and to keep as close to the carriage as convenient, using the powerful muscles of the back and shoulders in seating the trunnions. No. 2 then rotates the trunnion bearing wing nuts to the extreme rearward position, securing the gun to the pintle. No. 1 engages the elevating screw clutch in the latch, assisted if necessary by No. 2. No. 2 then takes a prone position on the right side of the carriage, lying on his right side, supporting the weight of his body with his right elbow, and sees that the breech is fully opened.

b. No. 3 moves at a run, arriving at the gun position as No. 2 lies down, places the box of ammunition on the ground, cover open and to the front, pulls out the ammunition in the packing strip near the right trail, then returns to his original position.

241. To dismount the gun.—At the command *Dismount gun*, by the corporal, the gun is dismounted as follows: The ammunition chest is passed to the rear by No. 2 as he rises from his position on the right of the gun. It is retrieved by No. 3, who resumes his post as described in paragraph 240. No. 1, assisted by No. 2, disengages the elevating screw clutch from the latch. This is done by pressing the forefinger of the right hand on the knurled surface at the front of the latch and pushing the elevating screw handwheel assembly forward as No. 2 lifts up the breechblock. The clutch being disengaged, No. 2 rotates the trunnion bearing wing nuts forward, releasing the trunnions from their bearings. He then grasps the barrel with his right hand, the back of the hand to the left, near the muzzle, and with three fingers of the left hand in the breech recess of the breechblock, lifts the barrel and recoil mechanism assembly up and forward, dismounting the gun from the carriage. Turning to the right, he moves at a run and resumes his post as described in paragraph 240. The gun being dismounted from the carriage, No. 1 dismounts the carriage and resumes his post as described in paragraph 240.

242. To load the gun.—At the command *Load*, No. 2 grasps the cartridge near the base, inserts it in the breech, pushes it fully home by means of the middle finger and forefinger of the left hand, rotates the breech lever to the closed position, being sure that the lever does not bounce up, leaving the breech partially open. He then rolls over to the left and transfers the greater part of his weight through his left elbow to the right trail, placing the elbow on top of the right trail well forward in the vicinity of the pintle, places the thumb of his right hand on the trigger and cautions to No. 1, "Up." From the earliest part of training, No. 2 must be cautioned that no movement of his body or shift in weight is permissible after he has cautioned, "Up," as in actual firing this will destroy the accuracy of the laying of the piece by No. 1.

243. To unload the gun.—*a.* At the command *Unload*, No. 2 resumes the prone position on the right side of the tripod, on his right side, supporting the weight of his upper body on his right elbow, lifts the breech lever with the finger tips of his left hand, back of the hand to the front, rotates the breechblock with increasing momentum, shifting his grip in so doing, until at the limit of rotation of the breechblock, he strikes the lever with the heel of the left hand a hard, sharp blow. Care must be used to prevent the left hand slipping off the breech lever and striking No. 1. This rotation of the breechblock automatically ejects the cartridge. In case of failure to extract and eject the cartridge, No. 2 reseats the cartridge fully home by pressing the base of the cartridge with the forefinger and middle finger of the left hand, closes the breech, and repeats the operation just described, using additional force in the delivery of the sharp, hard blow on the breech lever at the limit of rotation. In actual firing when a live cartridge will not extract, the unloading tool furnished in the spare parts kit will always be used. Forcing the live cartridge out by means of the rammer staff is prohibited. The rammer staff may be used on dummy cartridges or empty cases.

b. During the process of loading and unloading the gun, No. 1 keeps his right and left hands on the elevating and traversing handwheels, respectively, his head stationary, eyes open and on the target. Any movement of the handwheels, except when firing at moving targets, slows up the rate of fire. Any movement of the head tends toward the same end; any marked movement of the head causes the line of sighting to be lost when the gun returns to battery and further tends to develop a "flinch."

SECTION XVI

ADVANCED GUN DRILL, 37-MM GUN

244. Purpose and scope.—*a.* The purpose of advanced gun drill is to teach every member of the squad the duties of every other member in mounting, loading, laying, and serving the 37-mm gun under varied tactical and terrain conditions.

b. Elementary gun drill should be mastered and instruction in sight setting and aiming, in accordance with the principles of part 4, BFM, volume III, should be completed before advanced gun drill is taken up.

245. Responsibility for equipment and procedure.—*a.* During advanced gun drill, responsibility for equipment and procedure are as follows:

(1) *Corporal.*—(*a*) Commands the squad and is responsible for the action of the squad and for its equipment.

(*b*) Carries the sights and EE field glasses.

(*c*) Whenever the gun is mounted, mounts the sight in the sight bracket.

(*d*) Chooses the actual gun position.

(2) *No. 1.*—(*a*) Is second in command of the squad and in the absence of the corporal commands it.

(*b*) Is responsible for the mounting and laying of the gun.

(*c*) Carries the carriage.

(*d*) Assists in carrying the mounted gun.

(3) *No. 2.*—(*a*) Is responsible for the mounting, loading, unloading, firing (or simulated firing) of the gun.

(*b*) Carries the gun when it is not mounted.

(*c*) Assists in carrying the mounted gun.

(4) *No. 3.*—(*a*) Is responsible for the supply of ammunition at the gun and for the spare parts.

(*b*) Carries the rammer staff, shoulder guard (when carried), spare parts, ammunition chest, and bolo (or entrenching tool).

(*c*) Assists No. 2 in carrying the gun when so ordered by the corporal.

(*d*) Assists in carrying the mounted gun.

(5) *Nos. 4 and 5.*—Observe the drill from any convenient position. They may be called upon at any time to replace members of the gun crew.

b. (1) As in elementary gun drill, examination of equipment is habitual before and after each period of advanced gun drill.

(2) An additional item of the examination of equipment during advanced gun drill is the examination of sights by the corporal. He sees that the deflection dials of his sights are at zero, that the range dials are set at range of 500, and that the sight corrector dial is at zero.

246. To carry gun equipment by hand.—The squad equipment being laid out, at the command *March order* it is carried as follows:

a. (1) No. 1 places the carriage on either shoulder, points of spades up, front spade to the rear, steadying it with one hand.

(2) No. 2 places the gun on either shoulder, muzzle to the front, steadying it with one hand.

(3) No. 3 includes the rammer staff and carrying strap of the ammunition chest within the grasp of his right hand. Intrenching tool and spare parts when carried are carried in the left.

(4) The squad then moves off in the desired formation by appropriate command.

b. (1) This method of carrying the squad equipment is suitable for short changes in position or for moving the equipment from pack to previously reconnoitered gun positions where an advance by infiltration is necessary and when it is desired to disguise from the enemy the nature of the weapon. The above-described procedure may be departed from, depending upon conditions. The corporal may assist No. 1 in carrying the carriage and No. 3 may assist No. 2 if the advance is for some distance. In this case the rammer staff is inserted through the bore and breechblock and the gun carried between Nos. 2 and 3 who grasp the protruding ends of the rammer staff.

(2) If there is a covered route to the gun position, the gun is habitually mounted prior to moving it to the position. At the command **March order, three-man load**, the gun is mounted and carried by Nos. 1, 2, and 3, muzzle to the front. No. 1 is on the left and grasps the barrel just in rear of the muzzle with his right hand, back of the hand out. No. 2 is on the right and grasps the barrel just in rear of No. 1's hand with his left hand, back out. No. 3 secures within the grasp of each hand his own equipment and one of the trails, backs of both hands out. The corporal leads the squad in an advance and chooses a suitable route. When the ground permits, cadence should be maintained by the gun crew at both quick and double time.

(3) The "three-man load" is not normally used if the actual gun position is under observation by the enemy or this condition simulated. In this case the gun having been mounted and transported as a three-man load as near the gun position as cover permits, the corporal, being at or near the gun position, commands: **TWO-MAN LOAD**. The mounted gun is placed on the ground, muzzle to the front, and dragged forward by Nos. 1

and 2 to actual gun position. In doing this, care should be taken to avoid any unnecessary exposure. Nos. 1 and 2 lie on their left and right sides, respectively, grasp the front spade with their right and left hands, respectively, and drag the mounted gun to the designated position. No exposure above the axis of the bore is permissible.

c. The spirit of the offensive must be indoctrinated with 37-mm gun units. Gun and equipment are carried as far forward in pack as practicable, but the crews must be ready at any instant to move forward, carrying their gun and equipment as rapidly as the advance of the attacking unit necessitates.

247. To mount the gun.—*a.* The gun is mounted in advance gun drill, except where no cover is available (or this condition is simulated), as prescribed in paragraph 240.

b. When no cover is available (or this condition is assumed), at the command ***Mount gun, no cover available*** the procedure is as follows:

(1) No. 1 crawls forward, dragging the carriage, with his right arm crooked behind the front spade, to the designated position. Keeping all parts of his body below the top of the pintle, he then moves back to the rear of the trails, opens the trails to their full extent, swings the traversing screw forward, moves to the left of the tripod, and completes the assembly of the traversing screw to the traversing handwheel shaft. He pulls out both extension trails to the extended position. He then crawls forward until his shoulders are 18 inches in front of the pintle and, lying on his left side, assists No. 2 in handling the gun so that trunnions engage the recesses for them in the top of the pintle. He then rotates the trunnion bearing wing nut on the left side of the gun to its extreme rearward position. The trunnions being engaged, he crawls back to the firing position and, assisted by No. 2, engages the elevating screw clutch with the clutch bracket and assumes the firing position.

(2) No. 2 rolls over to his right until he is on his back, transferring the gun to a horizontal position over his chest, muzzle to the left, supporting it with his right hand at the end cap of the recoil cylinder and with his left hand under the breechblock, both elbows on the ground, forearms vertical. He then crawls forward on his back to the right side of the tripod, propelling himself by means of his elbows and heels, stopping when his

shoulders are about 18 inches in front of the pintle. Assisted by No. 1, he then places the trunnions in the corresponding recesses of the pintles, rotates the right trunnion cap wing nut to the rear, securing the trunnions to the pintle, and crawls back to the firing position on the right of the tripod. During this operation no part of the body of either No. 1 or No. 2 should rise above the axis of the bore of the gun when mounted.

(3) No. 3 crawls forward, places the ammunition chest as prescribed in paragraph 240, and crawls back to his original position.

(4) The corporal normally is at the gun position prior to giving the command. As soon as the gun is mounted he seats the sight in the sight bracket and crawls to a convenient position to observe fire, being careful to avoid any exposure.

c. On sloping ground.—(1) The gun may be mounted on ground sloping directly toward or away from the gun position without any preparation of the ground. The gun is not as stable on an uphill slope as on level ground. In this case, if the elevating mechanism does not permit the gun being depressed sufficiently to reach the target, the front spade must be lowered and sufficient ground cleared under the pintle to permit the elevating screw bracket and frame freedom for traverse. The gun is considerably more stable on downhill slopes than on level ground. In extreme cases, the elevating screw will drag and under these circumstances ground must be cleared to give it freedom.

(2) When the necessity for mounting the gun on a slope which is across the direction of fire arises, the uphill trail must be lowered until the line joining the rear spades is horizontal. This is particularly essential if any indirect fire is contemplated as otherwise the vertical crosshair of the quadrant sight is leaning away from its correct position and accurate laying for direction is rendered difficult. The carriage may be leveled, unless the slope is too steep, by leaving the uphill extension trail in.

(3) Any preparation of the ground is done by No. 3, as ordered by the corporal.

248. To go into action.—The sight settings, target, and gun position having been designated, the instructor commands: **ACTION.** At this command the gun is mounted as previously

described for the particular set of conditions desired, sights are mounted and set at the designated range and deflection, the gun is loaded or loading simulated and accurately laid before No. 1 reports "Ready." Time is recorded from the command **Action** to the report "Ready" by No. 1. Sights are checked and laying of the piece verified by the instructor. Various points covered by previous paragraphs are criticized. Every man in the gun squad is trained in the duties of Nos. 1, 2, and 3 in going into action.

249. To take the gun out of action.—*a.* Different methods of taking the gun out of action are explained in detail and practiced. The method to be employed under service conditions depends upon circumstances. For drill purposes, the instructor explains which method is to be used. The following methods are given as a general guide:

(1) The gun being mounted in a defiladed position, cover being available to the position of pack animals, or this condition simulated, the corporal commands: **OUT OF ACTION, MARCH ORDER.** At this command the gun is dismounted at the gun position and equipment carried by hand in the desired formation by appropriate command to the designated point as described in paragraph 246.

(2) The gun being mounted at a position where dismounting at this position would expose the squad to observation and there is cover close at hand, preferably in the immediate rear, the corporal commands: **OUT OF ACTION, COVER CLOSE BEHIND** (or otherwise). The mounted gun is pivoted by Nos. 1 and 2 about the front spade until the muzzle points to the rear, after the ammunition chest is passed back to No. 3. It is then dragged to the rear by Nos. 1 and 2 to the covered position and there dismounted as previously described. The corporal may give the command **March order** just prior to the dismounting of the gun, following it by appropriate command to move the squad to any desired location.

(3) The gun being mounted at a position where there is scant cover and it is desired to disguise from enemy observers the action of the gun crew, the corporal commands: **OUT OF ACTION, SCANT COVER.** At this command Nos. 1 and 2 crawl forward and working together dismount the gun from the tripod, keeping in a prone position and avoiding any exposure.

No. 2 carries the dismounted gun to the rear (or wherever the corporal directs) as described in paragraph 165. No. 1 prepares the carriage for carrying it by hand, keeping a prone position and avoiding any exposure. He then crawls to the rear (or wherever the corporal directs), dragging the carriage as described in paragraph 177. When the members of the gun squad have reached the desired position, the corporal may command **March order**.

b. The importance of this phase of training in getting the 37-mm gun out of action must be understood by members of the gun squad. Once fire has been opened in service conditions, the gun immediately draws fire from an alert enemy. Direct fire must frequently be employed by cavalry 37-mm units. An exposed position will come under machine-gun fire, which will immediately necessitate a change of position. This must be accomplished without suffering unnecessary casualties. Fire from defiladed positions may draw artillery fire and necessitate a prompt change of position. To meet these conditions, a combination of speed and use of proper methods is essential. Temporary cessations of fire due to change of position must be of minimum duration, but needless suffering of casualties caused by continuing fire from a position located by the enemy should be avoided. However, when the sacrifice demands it, fire once opened at a crisis must be continued, as one survivor can operate the gun, and in emergencies, move it when this must be done.

250. To commence firing.—a. Except when firing at moving targets, the command to commence firing is the last part of the corporal's firing order, which specifically states the number of rounds to be fired. This may be considered as the command of execution. The sight being set as ordered and the gun loaded and accurately laid, the gunner orders **Fire**. No. 2 presses the trigger with the thumb of his right hand, allowing it to slip off the trigger as the gun fires. This must be done to insure the cocking of the firing mechanism as the gun returns to battery.

b. In firing at moving targets, the number of rounds to be fired is omitted from the corporal's fire order. The sight being set by No. 3, the gun loaded and the caution "Up" given by No. 2, the command **Fire** is given by No. 1 at the instant the

target reaches the vertical crosshair of the sight. Fire is continued at as rapid a rate as is consistent with accurate laying, without command other than correction of sight setting based on observation by the corporal.

251. To cease firing.—Fire is ceased and the gun unloaded on command of the corporal: **CEASE FIRING**. This verbal command may be supplemented by the prescribed whistle or arm signal and by tapping No. 1 on the back.

SECTION XVII

37-MM GUN SECTION

252. Organization.—The 37-mm gun section consists of a sergeant and two 37-mm gun squads.

253. Formations and movements.—The 37-mm gun section forms and maneuvers by the same commands and in the same manner as the machine-gun section. (See sec. XI.)

254. To fight on foot.—This is the same as for the machine-gun section, making the necessary changes due to differences in equipment and substituting the action of the 37-mm gun squad for the machine-gun squad.

255. To go out of action.—See remark under paragraph 254.

SECTION XVIII

MACHINE-GUN TROOP

Caliber .30 (heavy) and caliber .50 (HB)

256. Organization.—*a.* The caliber .30 (heavy) troop is composed of a troop headquarters, three machine-gun platoons, and a 37-mm gun section.

b. The caliber .50 (HB) troop has a troop headquarters and three machine-gun platoons.

257. Troop headquarters.—*a. Troop commander.*—The troop commander normally leads the troop from a position 6 yards in front of the leader of the base platoon. He may go wherever his presence is necessary or desirable, directing a subordinate to lead the troop.

b. Second-in-command and supply officer.—The senior lieutenant is the second-in-command and supply officer. He commands the 37-mm section and the rear echelon of troop head-

quarters as a platoon. If neither section is present, he goes wherever the troop commander directs.

c. First Sergeant.—The first sergeant normally accompanies the troop commander except at ceremonies. His post is on the right of the guidon. He may be posted anywhere at the discretion of the troop commander.

d. Guidon.—The guidon is normally carried by the stable sergeant who follows the troop commander at 4 feet distance except at ceremonies and when in charge of the led horses. When the troop is in action, he takes charge of the led horses which remain under the control of the troop commander.

e. Buglers.—One bugler habitually accompanies the troop commander, riding on the left of the guidon. The other bugler may ride on the left of the first bugler, on the left of the first sergeant (when the first sergeant is not with the troop commander), or as directed by the troop commander.

f. Rear echelon.—(1) *Caliber .30 (heavy) troop.*—The remaining members of troop headquarters form the rear echelon and when present are formed into a section. This section, together with the 37-mm gun section (37-mm gun section on the right in line and in front in column), forms as a platoon under the command of the second-in-command. In emergencies or for instructional purposes, members of the rear echelon may be attached to other platoons to fill vacancies.

(2) *Caliber .50 (HB) troop.*—As there is no 37-mm gun section in this troop and as the troop headquarters is materially smaller than in the caliber .30 (heavy) troop, the rear echelon may be formed into a section or its members attached to platoons. As a section, it is drilled and maneuvered by the same commands and movements as the 37-mm gun section of the caliber .30 (heavy) troop.

258. Formations.—The following are the formations of the troop:

a. Line.—This is a close order formation in which the platoons are in line with an interval of 10 yards. The 37-mm gun section and the rear echelon of troop headquarters, formed as a platoon, are in line 6 yards in rear of the center machine-gun platoon. In the caliber .50 (HB) troop the rear echelon of troop headquarters takes the same place as the 37-mm gun section in the caliber .30 (heavy) troop.

b. Column (column of twos or troopers).—This is a close order formation in which the platoons in column (column of twos or troopers) are one behind the other with distances of 15 yards between platoons. The 37-mm gun section in column (column of twos or troopers) follows the rear machine-gun platoon at 3 yards. If present, the rear echelon of troop headquarters in column (column of twos or troopers) follows the 37-mm gun section at 3 yards.

c. Column of platoons.—This is a close order formation in which the platoons are in line and placed one behind the other with distances of 15 yards. The 37-mm gun section and the rear echelon of troop headquarters, if present, form a platoon and follow the rear machine-gun platoon at 15 yards. In the caliber .50 (HB) troop, the rear echelon of troop headquarters, if present, follows the right section of the rear machine-gun platoon at 15 yards.

d. Extensions in frontages and depth.—These are extended order formations in which the platoons are arranged with intervals or distances, or both, suitable to the situation and the terrain. The platoons may be in any prescribed platoon formation; platoons other than the base normally conform to the formation of the base. The 37-mm gun section and the rear echelon of troop headquarters, if present, form a platoon and follow the base machine-gun platoon.

259. Execution of movements.—a. The troop executes the movements of the platoon, section, and squad, which are obviously applicable, by the same commands, substituting, when necessary, the word "troop" for "platoon," "section," or "squad." The troop commander may cause the platoons, individually, to execute a movement by prefixing the word "platoons" to the command.

b. Any formation can be taken directly from any other.

c. In assuming column formations from line formations, the movement is initiated by the base platoon, usually the center platoon. The troop commander may designate any platoon as the base by placing himself in front of its leader.

d. Line formations are habitually assumed from column formations by a fan-shaped deployment, the head of the column moving in the direction the line is to face.

e. When necessary, line may be formed to a flank from column or column from line by executing **squads, column right (left)**. As this results in units being out of their normal position, the squads should execute **column left (right)** before a other formation is ordered.

f. The platoon is the largest unit that has an extended order drill by fixed commands. For the troop, extended order movements are executed by orders of the troop commander given under real or assumed tactical situations. These movements must conform to the terrain as it actually exists and to the tactical situation.

260. To form the troop.—a. The troop is normally formed in line but may be formed in any formation indicated in the command. The troop having been marched to the stable picket line, the first sergeant commands: **SADDLE, HARNESS, PACK** (or **SADDLE, HARNESS**), **AND FORM PLATOONS**. The platoon sergeants cause their sections to saddle, harness and pack (or saddle and harness) and lead out. They then form their platoons in the most convenient places without interfering with each other.

b. When the platoons have been formed, the first sergeant mounted, facing the position where the center of the troop is to form commands: **FORM TROOP**. The base (center) platoon takes position, mounted, in line, facing the first sergeant. The platoon sergeant is 6 yards from the first sergeant and facing him. The other platoons are formed in a similar manner on the left and right of the base platoon, on line with it at an interval of 10 yards from the base platoon.

c. The first sergeant commands: **REPORT**. Each platoon sergeant in turn, commencing on the right, salutes and reports, "(Such) platoon present," or "(So and so) absent." The first sergeant returns each salute, turns to the left and salutes and reports to the troop commander, "Sir, the troop present or accounted for," or "Sir, (so and so) absent." When no verification is required the report is, "Sir, the troop formed." The first sergeant takes his post at a trot. Officers take their posts.

d. During the formation the noncommissioned officer with the guidon and the buglers take post in rear of the troop commander. The senior noncommissioned officer in the re-

echelon of troop headquarters and the 37-mm gun section forms these two sections as a platoon. This platoon takes its post at the command: **FORM TROOP**. The noncommissioned officer forming this platoon reports it to the first sergeant after the platoon sergeant of the third machine-gun platoon has reported.

261. To dismiss the troop.—The troop commander directs the first sergeant to dismiss the troop. Officers fall out. The first sergeant commands: **DISMISS YOUR PLATOONS**. Each platoon sergeant takes charge of his platoon and dismisses it.

262. To form line.—The commands are: 1. **Line**, 2. **MARCH**. The base platoon, if not already in that formation, forms line and follows the troop commander, or moves at the gait of march straight to the front; the other platoons are conducted by their platoon leaders who increase the gait, if necessary, to their places in line. When near their places in line, each platoon, if not already in that formation, executes **line**.

263. To march the line to the rear.—The commands are: 1. **Platoons to the rear**, 2. **MARCH**. Each platoon executes a turn of 180° to the left about and proceeds in the new direction. The squad on the marching flank of each platoon takes the increased gait and moves slightly forward to clear the line before executing the turn.

264. To form column.—The commands are: 1. **Column**, 2. **MARCH**. The base platoon forms column and follows the troop commander or moves at the gait of march straight to the front. The other platoons form column and are conducted by their leaders, who increase or decrease the gait if necessary, to their places in column behind the base platoon. Each of the platoon leaders of the two rear platoons follows the rear element of the preceding platoon at 3 yards distance.

265. To form column of platoons.—The commands are: 1. **Column of platoons**, 2. **MARCH**. The base platoon follows the troop commander or moves at the gait of march straight to the front and, if not already in that formation, forms line. The other platoons are conducted by their leaders to their places in column behind the base platoon. When near their places in column, if not already in that formation, each platoon executes **line**. Each of the platoon leaders of the two rear platoons follows the rear element of the preceding platoon at 15 yards distance.

266. Route order.—At the command *Route order*, given when in column of twos or column of troopers, each platoon executes *route order* and the second and third platoons, the 37-mm gun section, and the rear echelon of troop headquarters close to 4 feet distance. The leader of the first platoon maintains his distance of 6 yards behind the troop commander.

267. To extend the troop laterally.—*a.* The commands are: 1. *Line of platoons*, 2. *At (so many) yards interval*, 3. *MARCH*.

(1) The base platoon follows the troop commander or moves straight to the front at the gait of march or the gait ordered. The other platoons are conducted by their leaders, at the increased gait, to their places on line with the base platoon and at the interval ordered.

(2) Each platoon conforms to the gait and formation of the base platoon or takes such gait or formation which may be ordered by its leader in order to pass obstacles, avoid observation, or reduce losses.

b. The troop commander may prescribe the route or objective of each platoon. For example, he commands: 1. *Line of platoons*, 2. *First platoon move up that gully* (pointing), 3. *Second platoon follow this line of trees* (pointing), 4. *Third platoon, dismounted, lead along this side of that stone wall* (pointing), 5. *37-mm gun section follow 2d platoon at 200 yards*, 6. *All platoons halt this side of the crest* (pointing), 7. *I will be with the second platoon*, 8. *MOVE OUT*.

268. To extend the troop in depth.—*a.* The commands are: 1. *Column of platoons*, 2. *At (so many) yards distance*, 3. *MARCH*. The base platoon follows the troop commander or moves straight to the front at the gait of march. It is followed by the other platoons and the 37-mm gun section at the distance ordered. Each platoon conforms to the gait and formation of the base platoon or takes any gait or formation which may be ordered by its leader in order to pass obstacles, avoid observation, or reduce losses.

b. The troop commander may designate the point of assembly before moving out. For example, he commands: 1. *Column of platoons at (so many) yards distance*, 2. *Assemble in that patch of woods* (pointing), 3. *All move at a fast trot*, 4. *I will be with the first platoon*, 5. *MOVE OUT*.

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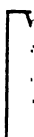
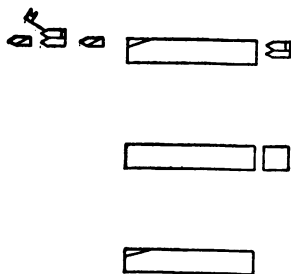
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Caliber .30 (Heavy) M.G. Troop
is COLUMN OF PLATOONS

FIGURE 33.—Line and column of platoons.

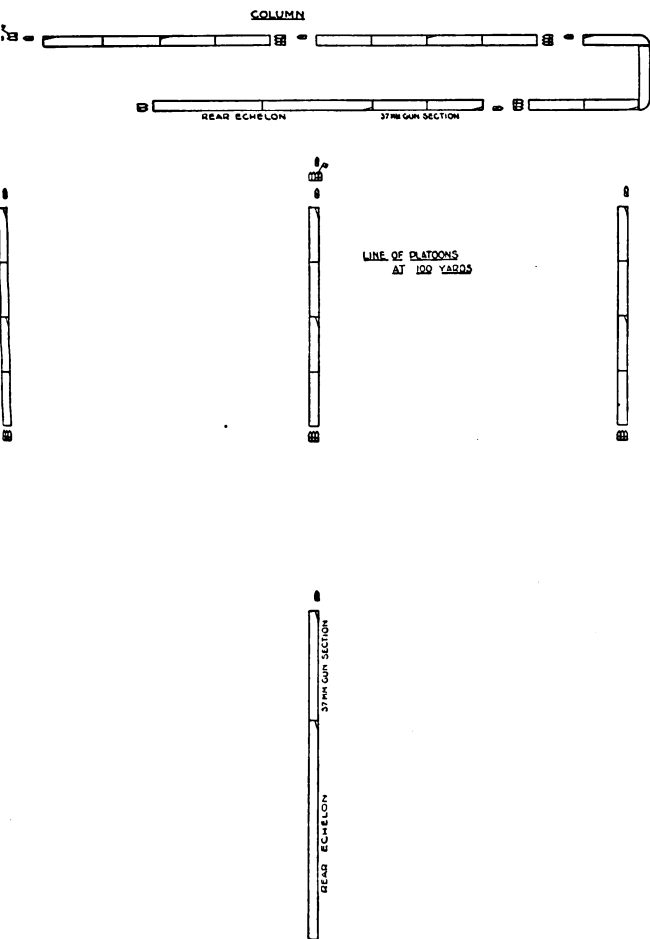


FIGURE 34.—Column and line of platoons.

269. To assemble the troop.—*a.* Being extended laterally, in depth, or in echelon, to assemble the troop the commands are: **1. Assemble, 2. MARCH.** At this command the normal formation (line) is resumed. In assembling from echelon, the rear

platoons move forward and take their position in line, maintaining the same relative positions as they had in echelon. The new center platoon then becomes the base.

b. If it is desired to assemble the troop in column, the commands are: 1. **Assemble in column**, 2. **MARCH**. The assembly is normally executed at the trot.

SECTION XIX

STAFF PLATOON

270. Organization.—The staff platoon consists of both horse and motor elements.

271. Formations and movements.—*a. Dismounted.*—The platoon is formed and maneuvered as prescribed in chapter 2, section I.

b. Motor elements.—When not employed individually, the motor elements are attached to and conform to the movements of the transportation platoon. (See sec. XXII.)

c. Horse elements.—The horse elements are formed and maneuvered according to the principles and methods prescribed for the rifle squad. (See sec. IV.)

SECTION XX

COMMUNICATION PLATOON

272. Organization.—The communication platoon consists of both horse and motor elements.

273. Formations and movements.—*a. Dismounted.*—The platoon is formed and maneuvered as prescribed in chapter 2, section I.

b. Motor elements.—When not employed otherwise, motor elements are attached to and conform to the movements of the transportation platoon. (See sec. XXII.)

c. Horse elements.—Drill movements for the horse elements of the communication platoon are only to facilitate maneuver for the purpose of establishing communication. The platoon and its sections are formed and maneuvered as prescribed for the machine-gun squad, section, and platoon with the necessary modifications due to differences in organization, equipment, and missions.

(1) *Sections*.—The radio and panel sections (pack) and the message center section habitually form in column as indicated in figure 35.

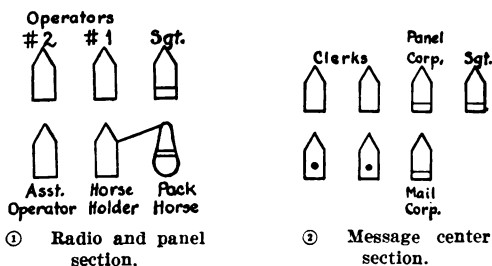


FIGURE 35.

(2) *Platoon*.—The platoon forms in line of section columns or in column of sections.

(a) In line of section columns, sections are abreast of each other, with 10 yards interval, in order from right to left 1st, 2d, 3d radio and panel sections (pack) and the message center section.

(b) In column of sections the sections are in column without distance, in order front to rear, 1st, 2d, 3d radio and panel sections (pack) and message center section.

(c) At platoon mounted formations, the message center sergeant normally is the platoon sergeant.

SECTION XXI

SCOUT-CAR PLATOON

274. *Organization*.—The scout-car platoon consists of scout cars and motorcycles. It is divided into sections normally containing two or three cars.

275. *Formations and movements*.—*a. Dismounted*.—The platoon forms and drills dismounted as prescribed in chapter 2, section I.

b. Motor elements.—The number of movements executed by scout cars is limited to those necessary to conduct and control the platoon efficiently. When crews are mounted in the cars, drill movements are initiated and completed on arm and hand

signals of platoon or section leaders. When distances are short, arm signals may be supplemented by whistle signals, and when distances are great, arm and hand signals may be supplemented by the use of radio. In any formation, sections other than the base conform to the formation, speed, and direction of the base section. (For arm and hand signals, see section III.)

276. To form the platoon.—*a.* The platoon is normally formed in line with an interval of 5 yards between cars. The platoon leader's car is 20 yards in front of the center of the line. The motorcycles assigned to the platoon leader's car and those assigned to the sections take position 10 yards in rear of the element to which assigned.

b. The platoon is formed with the crews at their posts in the cars. If they are required to dismount from the cars, the crew of each car forms in line 3 paces in front of its vehicle, in the following order from right to left: car commander, gunner, driver, radio operator. Motorcycle drivers form 3 paces in front of their vehicles.

277. Being in line, to form column of cars or column of sections.—*a.* To form column of cars, the platoon leader orders or signals: 1. **Column**, 2. **MARCH**, and moves to the front or in the desired direction. The sections of the platoon form column of cars from the center. The sections then form platoon column in the order: base section, left section, right section, moving in the direction indicated by the platoon leader's car by the shortest route and at a speed that will permit forming the column in a minimum of time and without loss of distance. Normal distance between vehicles is 10 yards. This distance may be increased or decreased by suitable command or signal. (See fig. 36.)

b. Being in line to form column of sections, the platoon leader orders or signals: 1. **Column**, 2. **Sections**, 3. **MARCH**. The platoon leader's car and motorcycle move to the front, or in the desired direction, followed by the base section at a distance of 30 yards. The remaining sections oblique and follow the base section in the order: left section, right section. The base section is the center section in line unless otherwise ordered.

278. Being in column of sections or column of cars, to form line.—The platoon leader orders or signals: 1. **Line**, 2.

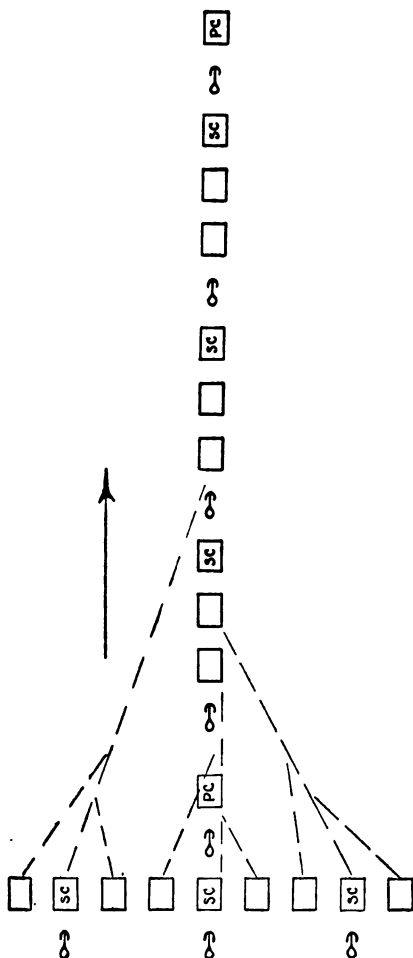


FIGURE 36.—From line to column of cars.

MARCH. Normal principles of deployment in cavalry drill are applicable to the cars and sections.

279. Being in line, column of cars or column of sections, to form line of section columns.—*a.* Being in line, to form line of section columns, the platoon leader orders or signals: 1. **Line of section columns**, 2. **MARCH.** The platoon leader's car moves to the front or in the desired direction followed by the base section at normal distance in column of cars. Sections other than the base section form column of cars and move by the shortest route to a position abreast of the base section. Normal interval between sections is 25 yards.

b. Being in column of cars or column of sections, to form line of section columns, the base section forms column of cars and follows the platoon leader's car at normal distance. Sections other than the base section form column of cars and move by the shortest route to their positions.

280. To extend the platoon in depth.—To extend the platoon in depth, the commands are: 1. **Column of cars (sections) at (so many) yards**, 2. **MARCH.** The platoon leader's car is the leading car. The remaining cars or sections follow at the prescribed distance.

SECTION XXII

TRANSPORTATION PLATOON

281. Organization.—The transportation platoon consists of motor elements.

282. Formations and movements.—*a. Dismounted.*—The platoon is formed and maneuvered as prescribed in chapter 2, section I.

b. Motor elements.—*a.* The normal formations of the platoon are line and column, with the necessary variations of these formations to suit the available space and terrain. Formations and drill prescribed for the scout-car platoon are employed so far as applicable.

283. To form the platoon.—The manner in which the transportation platoon forms is dependent on several factors; manner in which parked, space available, and future employment. Formations may be line or column with variations.

284. To park the platoon.—The formation adopted for parking varies. Governing factors are the tactical situation, space

available, and future employment. Usual parking formations are line or column. The tactical situation may require vehicles, especially mechanized vehicles, to be dispersed to avoid aerial attacks and terrestrial attacks.

SECTION XXIII

HEADQUARTERS TROOP

285. Organization.—Headquarters troop consists of a troop headquarters and staff, communication, scout car, and transportation platoons.

286. Training of personnel.—Headquarters troop as a unit does not engage in prescribed drills. Its personnel, being specialists, receive their principal instruction and training in the practical application of their respective duties as prescribed in the training publication covering their specialties.

287. Formations and movements.—*a. Dismounted.*—When assembled as a unit the troop is formed and maneuvered as in chapter 2, section I.

b. Motor elements.—The motor elements of the troop normally do not form or maneuver as a unit. Exception to this rule may be made for ceremonies or for other occasions when desirable.

c. Horse elements.—The horse elements of the troop normally do not form or maneuver as a unit. Exception to this rule may be made for ceremonies or for other occasions when desirable.

288. Formation for ceremonies.—Because the greater portion of headquarters troop is motorized, it is necessary to prescribe in detail the manner of forming its several platoons for reviews or other regimental ceremonies.

a. Reviews.—(1) *Mounted.*—(a) In forming for a review or other regimental ceremony, the headquarters troop forms as the left element of the regiment. Platoons, in turn, are formed from right to left in the following order and formations:

1. The communication platoon forms in line of section columns with 5 yards interval between sections. The staff platoon and troop headquarters form as a single rank 15 yards in rear of the communication platoon, the staff platoon on the right.

2. The scout-car platoon forms in column of sections 10 yards to the left of the communication platoon. The platoon leader's car is 10 yards in front of the center of the leading section. Interval between cars is 5 yards; distance between sections 30 yards.
3. The transportation platoon forms in column of sections 10 yards to the left of the scout-car platoon, each section being in line with the corresponding section of the latter. Motor vehicles of the headquarters troop that are not a part of the transportation platoon proper or do not belong to the scout-car platoon, are attached to the transportation platoon for ceremonies. Interval between vehicles is 5 yards. The trucks form two sections and the station wagons and motorcycles form a third.

(b) During the march past the reviewing stand, officers and platoon leaders render the prescribed salute. The commanders of motor units render the hand salute. Enlisted personnel of the motor elements, except the drivers, assume the position of the soldier at attention, seated, with forearms folded horizontally in front of the body. The entire personnel, except the guidon bearer and motor vehicle drivers, execute *eyes right*. The horse elements execute *eyes right* at the command of the platoon leader and the motor elements at the command of the section leader.

(2) *Dismounted*.—In forming for a dismounted review the headquarters troop conforms to the same formations as prescribed for rifle troops. Motor vehicles are not present at a dismounted ceremony. The personnel of the motor elements, as well as that of the horse elements, are formed into squads and platoons in the same manner as in the rifle troops. The headquarters troop will normally be attached to the provisional squadron for the duration of the ceremony.

b. *Parades*.—(1) *Mounted*.—The headquarters troop is formed in the same manner for parades as for reviews. The scout-car platoon may attend a mounted parade, other motor elements will not.

(2) *Dismounted*.—The headquarters troop is formed in the same manner as that prescribed for a dismounted review or other

dismounted ceremony. The motor vehicles of the headquarters troop are not present at a dismounted parade. The personnel of the motor elements attend the formation as a part of the dismounted troop.

SECTION XXIV

SQUADRON

289. Organization.—The squadron consists of two or more rifle troops and a squadron headquarters.

290. Squadron headquarters.—*a. The squadron commander.*—(1) The squadron commander gives his commands or orders orally, in writing, by bugle or signals, or communicates them to the proper subordinates by means of staff officers or messengers.

(2) The commands necessary to effect the formations enumerated are indicated by the designations of the formations, for example, 1. *Line of troop columns of platoons*, 2. *MARCH*, or 1. *Mass*, 2. *MARCH*. In special cases the commands are specially prescribed in this text.

(3) For movements executed by the troop, similar commands are used with proper substitutions. Only those commands and means that are not, with proper substitutions, the same for the squadron as for the troop or are not plainly indicated in paragraph 291 describing the various formations, are specially given herein for the squadron.

(4) The squadron commander may regulate the gait and direction of march of the squadron by leading the squadron from a position 12 yards in front of the troop commander of the base troop. If accompanied by members of the squadron staff, the 12 yards is measured from rear of those accompanying him to the troop commander of the leading or base troop. The squadron commander may go wherever his presence is necessary or desirable, directing a subordinate to lead the squadron.

b. Adjutant.—The adjutant is posted 2 yards on the left of the squadron commander and abreast of him.

c. Staff officers.—Squadron staff officers (other than the adjutant), who may be present, ride in line in order of rank from right to left, the senior 2 yards in rear of the squadron commander.

d. Sergeant major.—The squadron sergeant major is posted 2 yards in rear of the adjutant, or in rear of the staff officer who may be present in rear of the adjutant.

e. Bugler.—The squadron bugler is posted 2 yards in rear of the squadron commander or in rear of the staff officer who may be present in rear of the squadron commander.

f. Messengers.—The messengers are posted on the left of the noncommissioned staff with intervals of 2 yards between individuals.

291. Formations.—The troops of the squadron may be arranged in any order with respect to one another in the following formations:

a. Line.—Line is a formation in which the troops are in line and abreast of each other with 10 yards interval between troops. Except at ceremonies and for rendering honors the squadron is rarely ever deployed in a single line in close or extended order. Line, in its strict meaning, is therefore a formation rarely used, although the squadron will often be deployed in two or more lines.

b. Mass.—Mass is a formation in which the troops are each in column of platoons and abreast of each other with intervals between troops of 10 yards. The light machine-gun platoons are formed, each in its place, with reduced intervals between squads. Mass is a formation that may be used when the squadron commander desires to give instructions to his squadron. For economizing in the use of space, mass may be useful when the squadron is waiting its turn to march out of camp or bivouacs or to take its proper place in a long column. When subject to the fire of the enemy, mass should never be used.

c. Line of troop columns.—This is a formation in which the troops are in column of fours and abreast of each other with intervals between troops equal to troop front plus 6 yards. The several lines of columns may be used at ceremonies, inspections, and in marches of approach.

d. Line of troop columns of platoons.—This is a formation in which the troops are in column of platoons and abreast of each other with intervals between troops equal to the front of two platoons plus 10 yards. (About 60 yards, or 40 yards when platoons have but two squads.)

e. Line of platoon columns.—This is a formation in which the troops in line of platoon columns are abreast of each other with intervals equal to platoon front plus 6 yards.

f. Column of fours (twos or troopers).—This is a formation in which the troops are in the corresponding formations, one behind another with distances of 10 yards measured from the rear element of one troop to the captain or his representative of the next troop next in rear.

g. Column of platoons.—This is a formation in which the troops, each in column of platoons, are one behind another with distances of 10 yards measured from the rear element of one troop to the captain, or his representative, of the next troop next in rear. Column of platoons is used only for ceremonies and inspections.

h. Column of troops.—This is a formation in which the troops, each in line, are one behind another with distances of 60 yards measured from the rear element of the rifle platoon of one troop to the captain of the troop next in rear. Column of troops is used only for ceremonies and inspections.

i. Extensions in frontage and in depth.—These are extended order formations in which the troops are arranged with intervals or distances or both suitable to the situation and the terrain. The troops may be in any prescribed troop formation, other than the base normally conforming to the formation of the base troop.

292. Execution of movements.—*a.* The squadron executes such movements of the smaller units as are obviously applicable. The squadron commander may employ the commands prescribed for the soldier, the squad, the platoon, and the troop where applicable; proper substitutions in the designations of the units are made when necessary.

b. In the squadron any formation can be taken from any other. To execute the necessary movements at the command of execution, troops move from one formation to another in the most convenient manner; and, in the presence of the enemy, in the most direct manner consistent with cover.

c. Having halted in a formation, no movements for the purpose of correcting minor discrepancies in alignments, intervals, or distances are made unless specially directed by the squadron commander or necessitated by the conditions of cover.

d. Changes of formation in the several troops are therefore usually made successively and the proper distances gained by increasing or decreasing the gaits of the units in rear of the base. The principle of measuring distance from the rear element of one unit to the leader of the next in column is adopted because it permits the leader better to judge his distance. Distances from one troop to another in column are not determined with the idea of permitting simultaneous changes of formation in the several troops. Because of the presence of light machine-gun platoons in the troops, many of these evolutions must necessarily be made successively.

e. A squadron in any line formation habitually forms in a column by breaking to the direction of march from its base troop in line. The base troop is indicated by the squadron commander who rides in front of its leader or who indicates it by his command or orders. The center or right center troop is habitually designated as the base, but the column may be formed on any troop indicated. When breaking into column from a line formation, the order of troops is the base troop, the next troop on the left of the base in line, the next troop on the right of the base in line, the second troop on the left of the base in line, etc.

f. A squadron in column of any kind habitually forms in any line formation by a fan-shaped deployment. The second troop in column moves up on the left of the base or leading troop; the third troop in column moves up on the right of the base troop, and so on. When the line is to be formed facing a direction other than the direction of march, the head of the column is turned to the new direction before deployment is ordered.

g. Preliminary to an engagement, the squadron or its units will be placed in the formation best suited for its subsequent tactical employment.

293. To form the squadron.—The squadron is formed habitually in mass, but may be formed in any formation.

a. The adjutant informs the captains as to the place of assembly and what the formation is to be. The troops having been formed and marched to the place of assembly, the adjutant takes post so as to be facing the base troop of the squadron when formed. *Adjutant's call* is sounded or the adjutant signals *Assemble*. The troops take position habitually in the

order of their letter designations from right to left in line and from head to rear in column. The captain of the base troop (the center or right center troop in line, the leading troop in column) places his troop in the required formation so that he himself is facing the adjutant at 12 yards distance. The other troops take their proper places with reference to the base. Any troop may be selected as the base, and if a troop other than that which would normally be the base is thus selected, the other troops take their positions as directed in line or column.

b. The squadron commander takes post 6 yards in rear of the adjutant facing the squadron. When all the troops are in place, the adjutant faces about and, saluting, reports to the squadron commander, "Sir, the squadron is formed," and takes his post. The squadron commander returns the salute of the adjutant and conducts his squadron as desired.

c. After the squadron has been formed, in whatever way it faces, troops are numbered from right to left in line and from front to rear in column or echelon, first troop, second troop, etc. The relative order of troops changes during evolutions and maneuvers, and no attention is thereafter paid to their original order.

294. To form column of fours from line by wheeling by fours.—The commands are: 1. *Column of fours*, 2. *First (third) troop, fours right (left)*, 3. *MARCH*. The first troop executes *column of fours, first platoon, fours right*; the light machine-gun platoon follows the rifle platoons at the proper time. Each of the other troops *wheel by fours* in the same way in time to follow the preceding troop at the proper distance. This is not the normal method of forming column of fours.

295. To move toward a flank for a short distance.—The commands are: 1. *Fours right (left)*, 2. *MARCH*. All troops execute *fours right* simultaneously. The light machine-gun platoons do not change their places in line or column, but execute *fours right*, maintaining the same relative positions. When sufficient distance has been gained to the flank, the squadron commander commands: 1. *Fours left (right)*, 2. *MARCH*.

296. To extend the squadron laterally or in depth or both.—a. The troops may be arranged in any formation, such as one behind the other, echeloned on the center or a flank

troop, all troops abreast, or each troop may be assigned a route or objective.

b. The squadron commander may assemble the troop commanders, explain the situation, and order any formation he desires; or he may send instructions to troop commanders by messengers.

c. In order to expedite the tactical handling of the squadron and to avoid complicated commands, frequently used formations may be adopted as standard within the squadron and given suitable designations whose meaning is understood by the subordinate leaders.

297. To attack.—*a.* When speed is essential, the squadron commander indicates an objective to each troop commander in turn and directs *Move out*. As each troop moves out, the squadron commander and those accompanying him join the next troop which he launches similarly in the direction and at the moment desired.

b. When time permits, the squadron commander assembles the troop commanders, explains the situation, and assigns tactical missions to the troops, adding such details as are necessary to secure coordination of effort.

298. The assembly.—*a.* The squadron is assembled when the troops of the squadron are united in any authorized close order formation of the squadron. The assembly is executed *in mass*, unless the squadron commander indicates some other formation, in which case the indication is given as the troops approach the squadron commander's position and sufficiently in advance for each captain to lead his troop to its proper position.

b. The squadron commander selects the base troop and indicates it in his orders or by placing himself in front of it and causing it to form in the desired formation and to face in the desired direction. The assembly of the squadron is effected according to the principles that govern the assembly of the troop.

c. The commands of the squadron commander are: 1. *Assemble*, 2. *MARCH*. Each troop, if not already assembled, is assembled by its troop commander before taking its place in the squadron. The assembly is made as quickly as possible consistent with quietness and order.

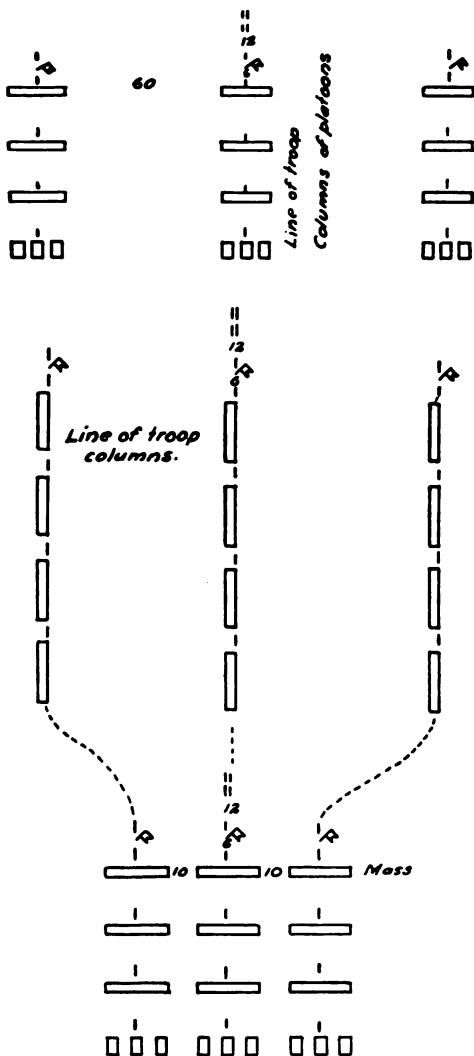


FIGURE 37.—Mass columns, line of troop columns, and line of troop columns of platoons.

d. The squadron does not rally, but executes *quick assembly*. If necessary, however, the captains may rally their troops in order to effect a very rapid squadron assembly.

299. To dismiss the squadron.—The squadron commander commands: **DISMISS YOUR TROOPS**. Staff and noncommissioned staff officers fall out; the headquarters detachment, if present as a unit, is marched to the proper place and dismissed; captains conduct their troops to the proper places and dismiss them.

SECTION XXV

REGIMENT

300. Organization.—a. The regiment normally consists of regimental headquarters, two or three squadrons, one or more machine-gun troops, and a headquarters troop. The machine-gun troops and headquarters troop may be formed into a provisional squadron when desired. Special groupings may be made to meet local tactical situations provided they do not alter the administrative responsibilities of organization commanders.

b. The squadrons retain their permanent administrative designations of 1st squadron, 2d squadron, etc., which have no connection with their temporary designations according to their positions when in line, as right, center, or left squadron; or when in column, as leading, center, or rear squadron.

301. Regimental headquarters.—a. *Regimental commander*.—(1) The regimental commander gives his commands or orders orally, in writing, by bugle, by signal, or communicates them to his subordinate commanders by means of staff officers or messengers. Commands or orders are given, not to smaller unit commanders, but to the squadron commanders who execute them.

(2) If the regimental commander's orders are transmitted by messenger (whether an officer or an enlisted man), the messenger uses the formula, "Regimental commander's orders, sir," and then repeats the message in the exact words in which given, or delivers the message, if a written one.

(3) The regimental commander signals *Attention*, or causes it to be sounded, preparatory to giving an oral command or a signal. When the regiment is in more than one line, if the

movement is to be executed by one of the lines only, first (or such) line is specified in the preparatory command; the commander of the designated line repeats and executes the command.

(4) As in the squadron, the wording of commands is determined by the names or designations of formations.

(5) The regimental commander, when leading his regiment, is habitually posted 24 yards in front of the leader of the base squadron. When the regimental commander is accompanied by any members of the headquarters or service troop, the distance is measured from the major of the leading squadron to the rear element of the group accompanying the regimental commander. When not leading, the regimental commander goes wherever his presence is necessary, leaving instructions with the lieutenant colonel or the senior squadron commander as to direction, gait, and anything else necessary.

b. Executive officer.—The lieutenant colonel is the assistant and executive officer of the regimental commander. He performs such duties as the regimental commander may direct. Except for ceremonies he is habitually posted on the regimental commander's left.

c. Staff officers.—(1) At all regimental formations except as may be provided for ceremonies, the staff officers (if present) are posted in line in order of rank from right to left, the senior 3 yards in rear of the regimental commander. When the regiment is in column of fours (twos, or troopers) the staff group takes a similar formation or forms as directed by the regimental commander.

(2) Noncommissioned staff officers and messengers, if present, are posted in line in order of rank from right to left, 3 yards in rear of the line of staff officers. When in column of fours (twos, or troopers) this group forms in rear of the staff officers with a distance of 4 feet from head to croup.

302. Formations.—The formations of the regiment are—

a. Line of masses.—This is a formation in which the squadrons are in mass and abreast of each other with 20 yards interval between squadrons.

b. Column of masses.—This is a formation in which each squadron is in mass and one behind another with distances of 20 yards between squadrons.

c. Line of squadrons.—This is a formation in which the regiment is deployed with squadrons abreast or echeloned as prescribed in orders of the regimental commander. Intervals and distances between squadrons are not fixed, but are as prescribed in the regimental commander's orders. The squadrons are in any of the prescribed formations as may be determined by the squadron commanders or ordered by the regimental commander.

d. Column of squadrons.—This is a formation in which the squadrons are one behind the other. The distances between squadrons is 20 yards except in column of troops when the distance between squadrons is 40 yards. Squadrons may be in any prescribed formation.

e. Extensions.—Extensions in frontage and depth are extended order formations for tactical purposes in which the squadrons are arranged with intervals or distances, or both, suitable to the situation and terrain. Squadrons may be in any prescribed squadron formation, those other than the base normally conforming to the formation of the base squadron.

303. Execution of movements.—*a.* The regiment executes such movements of smaller units as are obviously applicable.

b. In regimental drill and maneuver, the squadrons are conducted to their places according to the same principles that obtain for the troops in squadron.

c. The regimental commander may employ commands similar to those used for smaller units wherever they are applicable, making proper substitutions wherever necessary.

d. As in the squadron, the wording of commands is determined by the names or designations of formations.

e. A squadron, while awaiting the completion of a movement by other squadrons, may be permitted by its squadron commander to stand at ease.

f. In order to expedite the tactical handling of the regiment and to avoid complicated commands, frequently used formations may be adopted as standard within the regiment, and given suitable designations whose meaning is understood by the subordinate leaders.

304. To form the regiment.—The regiment is formed habitually in line of masses or column of masses, but may be formed in any formation. The executive officer, or staff officer acting as such, informs the majors as to the time and place of

assembly and what the formation is to be. The squadrons having been formed and marched to the place of assembly, the executive officer takes post so as to be facing the base squadron of the regiment when formed. Regimental call followed by assembly is sounded or the executive officer signals *Assemble*. The squadrons take position in the order prescribed by the regimental commander. The major of the base squadron places his squadron in the required formation so that he himself is facing the executive officer at 24 yards distance. The other squadron takes its proper place with reference to the base. Any squadron may be selected as the base. The regimental commander takes post 6 yards in rear of the executive officer, facing the regiment. When the squadrons are in place the executive officer faces about and, saluting, reports to the regimental commander, "Sir, the regiment is formed," and takes his post. The regimental commander returns the salute of the executive officer and conducts his regiment as desired.

305. To dismiss the regiment.—The regimental commander commands: *DISMISS YOUR SQUADRONS*. Commissioned and noncommissioned staff officers fall out. Any organized detachment from the headquarters troop is conducted by its leader to the proper place and dismissed; majors and commanders of any attached units conduct their commands to the proper places and dismiss them.

SECTION XXVI

BRIGADE AND DIVISION

306. General.—Ordinarily brigades and divisions do not engage in close order drill, mounted or dismounted. However, these units may be formed and maneuvered in accordance with the principles of drill governing their subordinate units, the commander indicating the formation or disposition desired and relinquishing to the next subordinate unit commanders the decision as to the method of accomplishment.

307. Brigade and division headquarters troops.—No drill, mounted or dismounted, is prescribed in this manual for these units. In general, their drill should conform to that prescribed for the regimental headquarters troop.

308. Armored car troop, cavalry division.—No drill is prescribed herein for the armored car troop of the cavalry division. In general, its drill should conform to that prescribed in Cavalry Field Manual, volume III, for the armored car troop mechanized cavalry.

CHAPTER 2

DISMOUNTED DRILL, SHELTER TENT PITCHING, AND INSTRUCTION, MOUNTED, WITH RIFLE

SECTION I

DISMOUNTED DRILL

309. Purpose and scope.—The dismounted drill prescribed herein is common to all types of cavalry units. The formations and movements prescribed are for elementary recruit instruction, for routine garrison movements of elements without their combat equipment, and for ceremonies.

310. Drill unit.—The platoon is the normal drill unit. While any size unit may be moved on foot by the methods described herein, drills for the purpose of developing smartness and precision will be held only for units up to include the troop.

311. Formations.—*a. Line.*—The men in rank are abreast of each other facing in the same direction with an interval of 48 inches between elbows. The commander of the unit is 3 paces to the front opposite the center. Men not in the rank are evenly distributed 3 paces in rear of the rank. In the platoon, squad leaders are in the rank as Nos. 1 of the left set of fours of each squad. If the troop is assembled in line, the interval between platoons is 3 paces.

b. Column of fours.—The men in each set of fours are arranged as in line and those in succeeding sets of fours cover accurately the corresponding numbers of the preceding set at a distance of 92 inches. At platoon drill the commander of a platoon is opposite the center of the unit and 3 paces to the flank. When acting as instructor, however, he may go wherever his presence is necessary. If the troop is assembled in column of fours, the platoon leaders take post 3 paces in front of their leading sets of fours on the side toward the troop.

Commander. The distance between the rear of one platoon and the platoon leader of the following platoon is 3 paces.

312. Commands.—*a. Normal commands.*—Normally, oral commands given in the cadence of quick time are used at dismounted drill. Whistle and arm signals may be used.

b. Commands to correct errors.—(1) Movements may be halted by the commands: 1. **In place**, 2. **HALT**. At the command **Halt**, all halt and stand fast without changing the position of soldier or weapon. The movement is resumed by the commands: 1. **Resume**, 2. **MARCH**.

(2) Any preparatory command may be revoked by the command: **AS YOU WERE**.

313. Movements.—*a.* All movements are explained to the right only. Unless specially excepted, they can be executed in a similar manner to the left by substituting "left" for "right" in the command.

b. In turns on a fixed pivot, the pivot man turns while marking time. The man on the marching flank maintains the full step, marching on the arc of a circle with the pivot man as the center. All guide on the marching flank, shortening their steps according to their distance from it and keeping their intervals from the pivot.

c. In turns on a moving pivot the pivot man turns on the arc of a circle of 1 pace (30 inches) radius and the man on the marching flank maintains the full step. All guide on the marching flank, shortening their steps according to their distance from it and keeping their interval from the pivot.

314. To form.—*a. Squad.*—The squad leader indicates where the right of the line is to rest and placing himself 3 yards in front of the approximate center of the squad commands: **FALL IN**. The men assemble at attention, rifles at the order. Each man brings up his left arm as in right dress and drops it as soon as the man on his left has his interval. The squad leader verifies his squad and commands: **COUNT FOURS**. The men, with the exception of the one on the right, execute **eyes right** and beginning on the right, count one, two, three, four; each man turning his head and eyes to the front as he counts. Rifles are then inspected.

b. Platoon.—The platoon is formed in a similar manner except that squad leaders are in the rank. The platoon sergeant

verifies the platoon by receiving reports from the squad leaders or calling the roll. After counting fours, squad leaders are placed as Nos. 1 of the left set of fours of each squad. For drill or ceremonies no blank files will be left in the rank, men in an incomplete four being placed in the line of file closers. Rifles are then inspected.

c. Troop.—The troop is formed by assembling the platoons, which have been formed as indicated above, in a formation suitable to the space available and the duty to be performed. Prior to the time fixed for the assembly, the first sergeant will notify the platoon sergeants the formation desired and notify the guidon which platoon to join. The guidon takes post on the right of the rank of the platoon indicated.

d. Larger units.—The movement of a unit larger than a troop by the methods prescribed herein is exceptional except as specified in ceremonies. Whenever it is desired to move a unit larger than a troop, it will be formed on the principles described for the troop with an interval of 6 paces between troops in line.

315. Alinements.—*a.* To aline the squad or platoon, the leader establishes the position of the base trooper or troopers and commands: 1. **Right**, 2. **DRESS**, 3. **FRONT**. At the command **Dress**, each man who has to furnish 4 inches interval to the man on his left, places the left hand with the fingers extended downward and joined, thumb along the forefinger, upon the left hip, heel of the hand resting against the hip bone near the belt. The left elbow is in the plane of the body. At the same time each man except the base trooper executes **eyes right** and places himself so that his right arm rests lightly against the left elbow of the man on his right and so that his eyes and shoulders are in line with those on his right. Each man halts upon arrival at his proper position. The leader verifies the alinement from a position 2 paces from that flank toward which the unit is dressing, facing the point of rest, and orders up or back such men as may be in rear or in advance of the line; only the men designated move. At the command **Front**, given when the rank is alined, each man turns his head and eyes smartly to the front and drops his left hand quickly by his side.

b. The alinement of a troop in column of platoons is rectified by the command: 1. **Right**, 2. **DRESS**. At the command **Dress**,

the troop commander moves to a position 2 yards in front of and facing the right trooper of the leading platoon (not the guidon). From this position he causes the right trooper of rear platoons to cover the right trooper of the leading platoon. At the command *Dress*, the platoon leaders take posts as described in *a* above and aline their platoons. When each platoon leader has completed the alinement of his platoon he resumes his post without command, the platoons remaining at the right dress. When all platoon leaders have resumed their posts the troop commander commands: *FRONT*, and resumes his post. If, as in the case of regimental ceremonies, the squadron commander gives the commands: 1. *Right*, 2. *DRESS*, the troop commander does not give the command: *FRONT*. He resumes his post at the same time the platoon leaders resume their posts and the squadron commander commands: *FRONT*. *Left dress* is executed in a similar manner.

c. When marching in column the guide is right unless ordered otherwise. When marching in line the leader announces the guide, as, *Guide right*. When marching, the men preserve their intervals from the side of the guide, yield to pressure from that side, and resist pressure from the opposite direction. They recover intervals, if lost, by gradually opening out or closing in; they recover alinement by slightly lengthening or shortening steps.

316. To wheel by fours.—*a.* Being at the halt, the commands are: 1. *Fours right*, 2. *MARCH*. At the command *March*, each set of fours wheels on a fixed pivot, the man on the marching flank taking 5 full steps. On the sixth count all step off with the full step.

b. Being in march, to wheel by fours, the commands and execution are the same except that the count for the movement begins on the second step after the command of execution.

c. To terminate the movement in a halt the commands 3. *Squad (platoon)*, 4. *HALT*, are added. The command *Squad (platoon)* is given on the second count and the command *Halt* on the fourth count.

317. To wheel about by fours.—*a.* Being at the halt, the commands are: 1. *Fours right about*, 2. *MARCH*. At the command *March*, each set of fours wheels on a fixed pivot, the man

on the marching flank taking 10 full steps. On the eleventh count all step off with the full step.

b. Being in march, to wheel about by fours the commands and the execution are the same except that the count for the movement begins on the second step after the command of execution.

c. To terminate the movement in a halt the commands 3. *Squad (platoon)*, 4. *HALT*, are added. The command *Squad (platoon)* is given on the seventh count and the command *Halt* on the ninth count.

318. Being in column of fours, to change direction.—a. The commands are: 1. *Column right*, 2. *MARCH*. At the command *March*, the leading four executes a 90° turn on a moving pivot and the other fours move forward and turn successively on the same ground.

(1) If executed from a halt, the man on the marching flank takes 7 full steps and on the eighth count all step off with the full step.

(2) If marching, the command and the execution are the same except that the count for the movement begins on the second step after the command of execution.

b. A partial change of direction may be made by the commands: 1. *Column half right*, 2. *MARCH*, or *INCLINE TO THE RIGHT*. In either case the movement is executed on the same principles as in a 90° change of direction.

319. Being in line, to change direction.—a. The commands are: 1. *Right turn*, 2. *MARCH*, 3. *Forward*, 4. *MARCH*. At the second command the squad (platoon) executes a turn of 90° on a moving pivot. On the completion of the turn all mark time until the fourth command.

b. A partial change of direction may be made by the commands: 1. *Right half turn*, 2. *MARCH*, 3. *Forward*, 4. *MARCH*. The movement is executed on the same principles, the fourth command being given when the unit is faced in the desired direction.

320. To oblique.—a. The squad being in any formation, the commands are: 1. *Right oblique*, 2. *MARCH*. At the command *March*, each man faces half right in marching and steps off in a direction of 45° to the right of his original front. He preserves his relative position, keeping his shoulders parallel to

those of the guide (the man on the right front of the line or column) and so regulates his step that the rank remains parallel to its original front.

b. To resume the original direction, the commands are: 1. **Forward**, 2. **MARCH**. At the command **March**, the men half face to the left in marching and then move straight to the front.

321. To take interval.—*a.* Being in line at the halt, the commands are: 1. **Take interval to the right**, 2. **MARCH**, 3. **Squad (platoon)**, 4. **HALT**. At the command **Take interval to the right**, all face to the right. At the command **March**, the leading man steps off; the other men step off in succession, each following the preceding man at 4 paces. At the command **Halt**, given when all have their intervals, all halt and face to the front.

b. Being at intervals, to assemble, the commands are: 1. **Assemble to the right**, 2. **MARCH**. At the command **Assemble to the right**, the man on the right stands fast. The other men face to the right. At the command **March**, they close on the man on the right, halt successively, and face to the front.

322. To take distances.—*a.* Being in line at a halt and fours having been counted, the commands are: 1. **Front take distance**, 2. **MARCH**, 3. **Squad (platoon)**, 4. **HALT**. At the command **March**, No. 1 of each four marches straight to the front; No. 2 marches straight to the front when No. 1 has a distance of 4 paces; Nos. 3 and 4 move off in succession in like manner; the command **Halt** is given when No. 4 has his distance.

b. To re-form line, the commands are: 1. **Form**, 2. **RANK**. No. 1 of each four stands fast; Nos. 2, 3, and 4 move up into their intervals and halt.

323. To stack arms.—Three rifles only are used to make the stack; rifles not so used are, in this connection, termed "loose rifles." Being in line in single rank at a halt, the command is: **STACK ARMS**. No. 3 steps back and covers No. 2; No. 2 grasps his rifle with the left hand, at the upper band, and rests the butt between his feet, barrel to the front, muzzle inclined slightly to the front and opposite the center of the interval on his right, the thumb and forefinger raising the stacking swivel; No. 3 then passes his rifle, barrel to the rear, to No. 2, who grasps it between the bands with his right hand and throws the

butt about 2 feet in advance of that of his own rifle and opposite the right of the interval. At the same time he allows the right hand to slip to the upper band, the thumb and forefinger raising the stacking swivel, which he engages with that of his own rifle. No. 1 raises his rifle with the right hand, carries it well forward, barrel to the front, the left hand guiding the stacking swivel, engages the lower hook of the swivel of his own rifle with the free hook of that of No. 3; he then turns the barrel outward into the angle formed by the other two rifles and lowers the butt to the ground so that it will be to the right of and against the toe of his right shoe. No. 2 lays loose rifles on the stack; No. 3 resumes his place in line. When each man has finished handling rifles, he resumes the position of attention. If the men fall out, on re-forming they take their original places in rear of the stacks.

324. To take arms.—Being in line in single rank behind the stacks, the command is: **TAKE ARMS.** No. 3 steps back and covers No. 2; No. 2 returns the loose rifles, then grasps his own rifle with the left hand, the rifle of No. 3 with his right hand, grasping both between the bands. No. 1 grasps his rifle in the same way with the right hand. No. 1 disengages it by raising the butt from the ground, and then turning the rifle to the right, detaches it from the stack. No. 2 disengages and detaches his rifle by turning it to the left, then passes the rifle of No. 3 to him. No. 3 resumes his place in line. All resume the order.

325. To load.—Being in line at a halt, the commands are: 1. *With dummy (blank or ball) cartridges*, 2. **LOAD.**

a. At the command **Load**, each trooper faces half right and carries the right foot about 12 inches to the right to such position as will insure the greatest firmness and steadiness of the body; raises or lowers the rifle and drops it into the left hand at the balance, left thumb extending along the stock, muzzle at the height of the breast and, if armed with the M1903 rifle, turns the cut-off up. With the right hand he turns up the bolt and draws it back; takes a loaded clip and inserts the end in the clip slots; places the thumb on the powder space of the top cartridge, the fingers extending around the rifle and tips resting on the magazine floor plate; forces the cartridges into the magazine by pressing down with the thumb; removes the clip; thrusts the bolt home, turning down the handle; turns the

fety lock to the "safe" and carries the hand to the small of the stock.

b. If kneeling or sitting, the position of the piece is similar. If kneeling, the forearm rests on the left thigh. If sitting, the elbows are supported by the knees. If lying down, the left hand steadies and supports the piece at the balance, the toe of the butt resting on the ground, the muzzle off the ground.

326. To unload.—Being in line or skirmish line, the command is: **UNLOAD**. Take the position of load, turn the safety lock (M1903 rifle) up (if armed with the M1917 rifle, turn the safety lock to the front) and move bolt alternately back and forward until all the cartridges are ejected. After the last cartridge is ejected, the chamber is closed by first thrusting the bolt forward slightly to free it from the stud holding it in place when the chamber is open, pressing the follower down and back to engage it under the bolt and thrusting the bolt home. The trigger is pulled. The cartridges are then picked up, cleaned, and returned to the belt and the rifle is brought to the order.

327. To set the sight.—Being in any firing formation, the command is: **RANGE, 1100 (850)**, etc., or **BATTLE SIGHT**. The sight is set at the elevation indicated.

328. To fire by volley.—*a.* Being in any firing formation, the commands are: 1. **Ready**, 2. **AIM**, 3. **Squad**, 4. **FIRE**. (For ceremonial purposes.) At the command **Ready**, turn the safety lock to the "ready," half face to the right, and place the feet 1 or 2 feet apart. At the command **Aim**, raise the rifle with both hands, butt held firmly against the shoulder, left hand well under the rifle, left hand grasping the rifle at or in front of the balance, rifle resting in the palm of the left hand, right elbow at the height of the shoulder, right cheek held firmly against the stock as far forward as it can be placed without straining. The rifle is raised 30° from the horizontal or, if ordered, at the horizontal. The left eye is closed, the right eye looking through the notch of the rear sight. At the command **Fire**, the trigger is squeezed rapidly; the rifle is then lowered to the position of load and loaded.

b. To continue the firing, the commands are: 1. **Aim**, 2. **Squad**, 3. **FIRE**. Each command is executed as previously explained. **Load** (from the magazine) is executed by drawing

back and thrusting home the bolt with the right hand, leaving the safety lock turned up to the "ready."

329. To fire at will.—*a.* Being in any firing formation, the command is: **FIRE AT WILL.** Each man, independently of the others, comes to the "ready," aims carefully and deliberately at the aiming point or target, fires, reloads and continues the firing until ordered to suspend or cease firing.

b. To fire a designated number of rounds, the command is: **ONE (TWO, FIVE, ETC.) ROUNDS, FIRE AT WILL.** Each man fires the designated number of rounds, reloads and holds the rifle in a position of readiness.

c. To increase (decrease) the rate of fire in progress the instructor shouts or signals: **FASTER (SLOWER).**

330. To suspend firing.—*a.* The leader blows a long blast of the whistle and repeats it if necessary or commands: **SUSPEND FIRING.** Firing stops; rifles are held loaded and locked in a position of readiness for instant resumption of firing, rear sights unchanged. The men continue to observe the target or aiming point or the place at which the target disappeared or at which it is expected to reappear. *Suspend firing* is used for short pauses or to steady the men.

b. This whistle signal may be used as a preliminary to *cease firing*.

331. To cease firing.—*a.* The leader signals or commands: **CEASE FIRING.** Firing stops; rifles not already there are brought to the position of load; those not loaded are then loaded; sights are laid and rifles locked and brought to the order. *Cease firing* is used for long pauses, to prepare for changes of position.

b. Commands for suspending or ceasing fire may be given at any time after the preparatory command for firing, whether the firing has actually commenced or not.

332. To fall out or dismiss the unit.—*a.* At the command **Fall out**, men break ranks and remain in the immediate vicinity.

b. At the command **Dismissed**, the men are released. If under arms, the arms are inspected prior to being dismissed.

SECTION II

SHELTER TENT PITCHING

333. To pitch shelter tents.—*a.* At the command ***Fall in to pitch shelter tents***, each man carries his canteen roll over his left shoulder and falls in, taking interval by extending both arms to their full length and touching the tips of his fingers to those of the men on his right and left. The unit is aligned and counts fours. During the alinement, all keep the arms extended so as to insure correct intervals.

b. At the command ***Even numbers plant tent pins***, each even-numbered trooper unrolls his roll, secures a tent pin and sticks it in the ground accurately between the heels of the odd-numbered trooper on his right. His pin indicates the position of the front shelter tent pole.

c. At the command ***Pitch shelter tents***, each trooper unrolls his roll and tents are pitched in the following manner: Each pair of troopers spread their shelter halves on the ground with the triangular flaps to the rear and button the long sides of the shelter halves together. The odd-numbered trooper procures his tent pole, inserts the iron pin in the brass eyelets at the front of the tent and holds the pole in a vertical position, the foot of the pole touching the planted tent pin. The even-numbered trooper drives the right front corner pin in the ground, taking care to stretch the front edge of the shelter half while the pole is held in a vertical position and to locate the pin exactly on the line of planted pins. He then drives the left front corner pin in a similar manner and then the front tent rope pin, taking care to drive the latter accurately in front of the pole. The even-numbered trooper then procures his tent pole and inserts the iron pin in the brass eyelets at the rear of the tent and places the pole so as to square the tent, taking care that both sides stretch evenly. The odd-numbered trooper drives the rear tent pins in the following order: Right rear corner, left rear corner, rear of triangular flaps (after having buttoned the flaps of the two shelter halves together), and last, the rear tent rope pin. The odd-numbered trooper is careful to locate the pins so as to stretch the canvas evenly. Finally each trooper drives the center pin on his own side of the tent. After the tents are pitched,

the guidon is strapped to the front tent pole of the first tent on the right of the line.

334. To strike shelter tents.—*a.* The commands for striking tents, if the *General* is not sounded on the bugle, are : 1. **Strike** 2. **SHELTER TENTS.** At the first command, each odd-numbered trooper removes the front tent rope pin and the left front corner pin and holds the front tent pole upright. Each even-numbered trooper removes the center pin on the left side of the tent, the left rear corner pin, the rear tent rope pin, and the triangular flap pin and holds the rear tent pole upright. All troopers stand facing the guidon and at the second command lower the tents toward the guidon. Each trooper then assembles his equipment and makes his roll.

b. If the *General* is sounded, all troopers execute at the first note of the call the movements prescribed to be executed at the command **Strike** and at the end of the last note of the call they lower the tents toward the guidon.

335. To pitch double shelter tents.—*a.* The double shelter tent is formed by buttoning together the square ends of the two single tents. Two complete tents, except one pole, are used to form a double tent. Two tent ropes are used at each end of the tent. The pins used in the tent ropes are placed in front of the corner pins of the tent.

b. To pitch double shelter tents, the commands are the same as to pitch shelter tents, except that the words "double shelter tents" are substituted for the words "shelter tents" wherever the latter occur. The commands are executed in the same manner except that the intervals are only half the intervals taken for single tents. To take the proper interval each trooper extends his right arm to its full length so that the tips of his fingers will just touch the left shoulder of the man on his right. Only No. 1 of each four marks the position of the tent and only No. 2 of each four plants his tent pin. Each tent is pitched by Nos. 1, 2, 3, and 4.

c. All the troopers spread their shelter tent halves on the ground, those of Nos. 1 and 2 with the triangular flaps to the front. All four shelter halves are then buttoned together, first the ridges and then the square ends. The front end of the tent

is erected by Nos. 1 and 2, No. 1 holding the pole, No. 2 driving the pins. Nos. 3 and 4 erect the rear end.

d. While Nos. 1 and 3 steady the poles, No. 2 takes his tent pole and enters the tent. Assisted by No. 4, he adjusts the pole to the brass eyelets of the shelter halves in the following order: The lower half of front tent; the lower half of rear tent; the upper half of front tent; the upper half of rear tent. The tent-rope pins are not driven until the center pole has been erected.

336. To strike double shelter tents.—At the command **Strike**, Nos. 1 and 3 hold the front and rear poles upright while Nos. 2 and 4 remove the pins at the front, left side, and rear of the tent.

SECTION III

INSTRUCTION, MOUNTED, WITH RIFLE

337. To stand to horse.—At **stand to horse**, the rifle is held on the left side of the trooper in a position corresponding to order arms.

338. To mount.—In mounting, the trooper with the rifle at the left trail steps back to a position opposite the girth; and, before taking both reins in his hand, inserts the rifle in the scabbard.

339. To dismount.—On dismounting, the trooper, after placing the bight of the reins on the horse's neck and before stepping forward to take the position of stand to horse, takes the rifle from the scabbard, assumes the left trail, and then takes the position of stand to horse.

340. To fight or form on foot.—In executing **fight on foot** or **form on foot**, the trooper first secures his horse then takes the rifle from the scabbard.

341. To lead out.—When the trooper is leading his horse for short distances, the rifle is carried at the left trail.

342. To advance rifle (the trooper being mounted).—The commands are: 1. **Advance**, 2. **RIFLE**. At the command **Rifle**, grasp the piece at the small of the stock with the right hand, raise it, and place the butt upon the right thigh, barrel to the right, the piece inclined to the front at an angle of about 30°, then slide the hand up so as to grasp the rifle at the balance.

343. To return rifle (the trooper being mounted).—The commands are: 1. *Return*, 2. *RIFLE*. Lower the muzzle, insert the rifle in the scabbard, and drop the right hand to the side. When loaded, the piece is locked before executing *return rifle*.

344. To load.—Being at advance rifle, at the command *Load*, drop the piece into the left hand, resting the toe of the butt against the right thigh and incline the barrel to the left front and upward at an angle of about 30°. Support the rifle at the balance by the thumb and forefinger of the left hand, the other fingers closed on the reins; then, taking care not to change the "feel" of the reins, load the piece, and resume the position of advance rifle.

345. To aim.—First turn the horse so that the target is to the left front, drop the rifle into the left hand at the balance, raise it with both hands, and take aim. Care should be taken not to disturb the horse by a change in the "feel" of the reins.

346. To fire.—The only classes of fire which it is practicable to employ mounted with the rifle are fire at will and clip fire; and even these are ordinarily applicable only to small groups of foragers, patrols, or individual scouts.

347. To suspend firing.—The signal or command *Suspend firing* is repeated as necessary. Firing stops, pieces are held loaded and locked in the position of advance rifle, sights unchanged, ready for instant resumption of firing.

348. To cease firing.—The signal or command *Cease firing* is repeated as necessary. Firing stops, pieces not loaded are loaded, sights are laid, and all pieces are locked and brought to the position of advance rifle.

CHAPTER 3

CEREMONIES AND INSPECTIONS

SECTION I

GENERAL PROVISIONS AND INITIAL FORMATIONS

349. General.—a. The purpose of ceremonies, including inspections, is to promote a high state of morale, preserve tradition, render honors, or exhibit the state of training and efficiency of a command. Other than for necessary practice, ceremonies should be held only when the occasion for them is

apparent and appropriate. Cavalry ceremonies should be mounted whenever possible.

b. The reviewing ground, or field upon which ceremonies are held, is usually rectangular in shape and of a size suitable to the command. The troops are normally formed on the middle portion of one of the long sides, facing the field. The post of a reviewing officer is near the middle of the opposite side and is indicated by a marker. Markers may be used to indicate other positions and the extent of the field to be used. If the ground is restricted, formations and movements must be adapted to the space available.

c. While a unit is being formed, its commander and his staff, less the adjutant and sergeant major, face the unit. As soon as the unit has been formed and reported, the commander and his staff turn about and take position facing to the front. In subsequent changes of front by the commander, the staff stands fast. In turning about at a ceremony, commanders turn to the right about.

d. The post of the guidon at ceremonies is on the right of the rank if the troop is in line, and on the right of the leading platoon if the troop is in column of platoons. Dress in all units is to the right unless otherwise specified.

e. While in garrison, the officers' dress saber will be carried at all ceremonies of horse cavalry whether the troops are in garrison or field equipment. The commander of troops and his staff draw saber after the unit has been reported by the adjutant and the latter has taken his post. The reviewing officer and staff do not draw saber at any time during a ceremony.

f. The following general rules are applicable to the band and field music in all cases except where a departure therefrom is specifically provided for:

(1) *Positions*.—(a) The band takes position facing the troops with its right approximately 25 yards to the left of the post of the reviewing officer. The band leader is on line with the reviewing officer. The band remains in this position until the completion of the ceremony.

(b) Where both the band and field music are present the field music joins the band, forming in rear of the band proper, and remains with it throughout the ceremony. If the band is

dismounted, the field music is dismounted. When the band is not present, the field music is habitually mounted when the troops are mounted and takes the same post with respect to the reviewing officer that is prescribed for the band. It remains in this position throughout the ceremony.

(c) The sergeant bugler is not normally present with the field music, but accompanies the adjutant during the forming of the regiment after which he joins the staff of the commander of troops. If it is desirable that the sergeant bugler remain with the field music—that is, in the absence of the band—another bugler may be designated to represent him on the staff of the commander of troops.

(2) *When band is mounted.*—In the event that a mounted band is available the following procedure is applicable to reviews or ceremonies terminating with a review:

(a) The band and field music, mounted, take position with the left file of the leading rank 12 yards to the right of and in continuation of the final line upon which the troops are to form.

(b) At the command 1. *Pass in review*, 2. *MARCH*, given by the commander of troops, the music, playing, moves forward until it is in a position directly in front of where the leading platoon will be when the latter has changed direction. The music then executes *right turn* and passes in review, changing direction at the markers without command. Immediately after passing the reviewing officer the music turns out of column, takes post in front of and facing the reviewing officer, and continues to play until the troops have passed. It remains in this position until the completion of the review.

350. To form horse cavalry regiment for mounted ceremonies.—a. The regiment is normally formed in *line of masses*, with squadrons in numerical order from right to left. A provisional squadron may be constituted, consisting of the machine-gun troop or troops and the headquarters troop. This provisional squadron forms on the left of the last numerical squadron. The motor elements of the headquarters troop are formed as a group on the left of the provisional squadron.

b. When the regiment consists of three rifle squadrons and the provisional squadron, the position of the standards is in the interval between the 2d and 3d squadrons; when the regiment

consists of less than three rifle squadrons the standards are placed between the 1st and 2d squadrons.

c. Prior to the hour designated for the regiment to form, the troops are conducted to an initial line in rear of the line upon which the regiment is to be formed. On this initial line the troops execute *line of masses*, the officers draw saber, and await the proper time to move forward to the final line. The movement forward is at the walk or trot. The distance between the initial and final line is approximately 60 yards.

d. The adjutant, accompanied by the sergeant major and sergeant bugler, precedes the troops to the place of the formation. When the troops are in their initial positions and the band and field music are in position on the left of the post of the reviewing officer, the adjutant and sergeant major post themselves facing each other, the adjutant 4 yards outside the point where the right, and the sergeant major a few yards outside the point where the left of the regiment is to form. The sergeant bugler posts himself 6 yards in rear of the adjutant.

e. The adjutant then draws saber and directs the sergeant bugler to sound *Adjutant's call*. At the last note of this call, the guidons trot (gallop) forward and halt on the line established by the adjutant and sergeant major, faced to the front, at the points where the right of their respective troops are to rest, and dress to the right without command. The adjutant aligns the guidons on the sergeant major.

f. The adjutant then directs the sergeant bugler to sound: 1. *Forward*, 2. *MARCH*, or 1. *Forward*, 2. *Trot*, 3. *MARCH*. At the command *March*, the right squadron moves forward and is halted one horse's length in rear of the line established by the guidons. The squadron commander then commands: 1. *Right*, 2. *DRESS*. The right trooper of the leading rank of each troop moves up abreast of and on the left of the guidon.

g. Each troop commander moves to a position 6 yards in front of and facing the guidon and causes the right troopers of each platoon to cover from front to rear. Each platoon commander moves to a position 2 yards to the right of the right trooper of his platoon, faces toward the rank and aligns his platoon. As soon as the alinement of a platoon is completed, the platoon commander resumes his post without command.

h. When the dress is complete the troop officers resume their posts without command, the troops remaining at the **right dress**. When all troop commanders of the squadron have resumed their posts in front of their troops, the squadron commander commands: **FRONT**, and faces about.

i. When the right squadron has reached the line and its commander has given the command: 1. **Right**, 2. **DRESS**, the second squadron moves forward at the same gait and is dressed in the same manner. The second squadron is followed by the third, the third by the provisional, the provisional by the motor elements of headquarters troop.

j. During the march from the initial to the final line the band plays appropriate music, ceasing to play when the last mounted unit has arrived on the line.

k. Just prior to the sounding of *Adjutant's call*, the commander of troops, with his staff (less the adjutant, sergeant major, and sergeant bugler) takes post opposite the center of and facing the regiment. His position is normally about half the distance between the post of the reviewing officer and the line established by the adjutant and sergeant major.

l. When all squadrons are on the line and **Front** has been given by their commanders, the adjutant verifies the alinement and moves to a point 4 yards outside of the right of the regiment and slightly in advance of the line of squadron commanders. He then moves at the trot or gallop in front of the line of squadron commanders to a point opposite the commander of troops, turns to the right and halts midway between the line of squadron commanders and the commander of troops. Upon halting, the adjutant salutes and reports, "Sir, the regiment is formed." The commander returns the salute and directs, "Take your post, sir." The adjutant moves at the trot or gallop and passing to the right and rear of the commander takes post on the right of the commissioned staff.

m. While the adjutant is executing the movements described above, the sergeant major and the sergeant bugler join the commander of troops at the trot or gallop and take posts on the right and left, respectively, of the noncommissioned staff.

351. To present the command and render honors at mounted ceremonies.—At mounted regimental ceremonies (re-

views, parades, escorts to the standard) the command is presented and honors rendered in the following manner:

a. The regiment having been formed and reported, the commander of troops, at the proper time, faces the regiment and directs the sergeant bugler to sound *Attention*, which constitutes the preparatory command for presenting the regiment, followed by a single blast of the bugle as the command of execution. At the command of execution the standard, the guidons, and all officers except the commander and his staff salute in unison. The commander then faces about and, with his staff, salutes.

b. At this time, if honors are to be rendered, the drummers sound the *Ruffles* while the buglers sound the *Flourishes*. The music then plays the *General's March*, a march, or *The National Anthem*, whichever is appropriate. In the absence of the band the field music sounds *To the Standard* in lieu of *The National Anthem*. If, as in the case of a review, the honors are again rendered while the standard is passing the post of the reviewing officer, *The National Anthem* or *To the Standard* is not played during the march past. The honors rendered consist only of the *Flourishes* sounded by the field music during the time that the standard is rendering the salute.

c. At the completion of the rendering of honors (this does not refer to honors rendered during the march past) or if no honors are rendered, at the proper time the commander of troops and staff resume the carry saber or complete the hand salute. The commander then faces the regiment and directs the sergeant bugler to sound *Attention*, followed by a single blast of the bugle. At the single bugle blast the standard, the guidons, and officers resume the carry. If the officers are without the dress saber they complete the hand salute.

352. To form horse cavalry regiment for dismounted ceremonies.—The forming of the regiment for dismounted ceremonies corresponds to the mounted formation with the following modifications:

a. Intervals and distances are measured in paces instead of yards.

b. At this time, if the honors are to be rendered, the pro-at *Adjutant's call* the guidons are brought forward at the double time.

353. To present the command and render honors at dismounted ceremonies.—At dismounted regimental ceremonies (reviews, parades, escorts to the standard) the command is presented in the following manner:

a. The regiment having been formed and reported, the commander of troops, at the proper time, faces the regiment and directs **Present arms**. The squadron commanders face about and, successively from right to left, command: 1. **Present**, 2. **ARMS**, each successive squadron commander waiting until the squadron on his right has completed the movement before giving his command. As the ranks present arms the troop officers and guidons salute. The squadron commander then faces the commander of troops and, with his staff, salutes. If the rank of the official to whom the command is presented entitles him to the honor, the regimental standard renders the salute with the squadron on its right. When all squadrons are at present arms, the commander of troops faces about and, with his staff, salutes.

b. At this time, if the honors are to be rendered, the procedure followed is identical with that described for the mounted ceremony.

c. At the completion of the rendering of honors (this does not refer to honors rendered during the march past) or if no honors are rendered, at the proper time the commander of troops and staff resume the carry saber. The commander then faces the regiment and directs **Order arms**. The squadron commanders carry saber, face about and, successively from right to left, command: 1. **Order**, 2. **ARMS**, each successive squadron commander waiting until the squadron on his right has completed the movement before giving his command. The regimental standard and the guidons are raised and the troop officers order saber at the command of execution of the proper squadron commander. The squadron commander then faces to the front and, with his staff, executes **order saber**. When all squadron commanders have executed **order saber** the commander faces about and, with his staff, does likewise.

354. To form the squadron for mounted or dismounted ceremonies.—The cavalry squadron is formed for ceremonies and reported in a manner similar to that prescribed for the regiment.

355. To form the brigade for mounted or dismounted ceremonies.—The brigade is habitually formed in line with each regiment in line of masses. Intervals are as prescribed by the brigade commander. At the formation of the brigade for ceremonies, *Adjutant's call* is not sounded, it is not formed by its adjutant, and is not reported by its commander. As each regiment and special unit arrives at the place designated for the ceremony, its commander causes it to take the proper formation and, if mounted, to dismount and rest. At a sign or message from the brigade commander that the ceremony is to commence, each regimental or special unit commander calls his unit to attention and, if the ceremony is mounted, causes the regiment to mount.

SECTION II

REVIEWS

356. General.—*a.* A review is a ceremony tendered to a civil or military official or to a foreign dignitary. A review may also be held for the purpose of presenting decorations or making a general inspection of the command.

b. The reviewing ground is usually rectangular in shape and of a size suitable to the command. The troops are formed on the middle portion of one of the long sides facing the field, the reviewing officer's post being at the middle of the opposite side facing the troops. The post of the reviewing officer is usually marked by a flag.

c. The commissioned personnel of the reviewing officer's staff place themselves in line in order of rank from right to left, the senior 3 yards in rear of the reviewing officer. The enlisted personnel of his staff are similarly placed 3 yards in rear of the commissioned staff. The flag of a general officer is placed on the right of his enlisted staff. The same relative positions are applicable to the staff of the commander of troops.

d. Officers of the same or higher grade, and distinguished personages invited to accompany the reviewing officer, place themselves on his left. The commissioned and enlisted staffs place themselves, respectively, on the left of the commissioned and enlisted staffs of the reviewing officer. All others who

accompany the reviewing officer place themselves on the left of his commissioned staff, their enlisted attendants in rear. A staff officer is designated to escort distinguished personages during the review and to indicate to them their proper positions.

e. When an organization is reviewed by an inspector junior in rank to the commanding officer, the commanding officer receives the review as reviewing officer and is accompanied by the inspector, who takes post on his left.

357. Regimental review.—*a. Mounted.*—(1) The regiment having been formed and reported to the commander of troops by the adjutant, the commander of troops and his staff draw saber. The commander then turns to the right about, followed by his staff, and faces the reviewing officer. The latter moves a few paces toward the commander and halts.

(2) The commander then faces the regiment and issues the necessary orders to present it to the reviewing officer. While the standard, guidons, and officers are at present, the honors are rendered if the rank of the reviewing officer entitles him to that honor. For details of presenting the regiment and rendering honors, see paragraph 351.

(3) After presentation of the regiment, if the reviewing officer does not desire to ride around the troops, he so informs the commander, and the march past follows. If he elects to ride around the troops, he, accompanied by previously designated members of his staff, approaches the commander. The commander salutes at the approach of the reviewing officer and, riding on the latter's right, both proceed to the right of and ride around the regiment, keeping the troops on the left. During this phase the reviewing officer makes a general inspection of the troops.

(4) When riding around the troops, the reviewing officer may direct his staff to remain at its post. In this event the commander of troops alone accompanies him. If the reviewing officer is accompanied by any or all of his staff, the commander of troops will designate such members of his staff as he may desire to accompany him. They place themselves on the right of the staff of the reviewing officer. The flag of a general officer remains at the post of the reviewing officer during the ride around the troops.

(5) The band plays while the reviewing officer is inspecting the troops in his ride around.

(6) When passing around the troops, the reviewing officer and those accompanying him salute the standards when passing in front of them. The standards do not salute.

(7) If so directed by the reviewing officer, each subordinate commander, without his staff, joins the reviewing officer when the latter approaches his unit and remains with him until he leaves the vicinity of the unit. The subordinate commander during this time rides on the right of the reviewing officer and on the left of the commander of troops, who leaves sufficient interval for this purpose.

(8) When the reviewing officer and the commander of troops arrive again at the right of the regiment, the latter halts and salutes. The reviewing officer returns the salute and proceeds to his post. When the reviewing officer and staff have passed, the commander with his staff moves directly to his post in front of the regiment. When the reviewing officer has regained his post, the commander faces the troops and commands: 1. *Pass in review*, 2. *Column of platoons, on first squadron*, 3. *MARCH*. If the first march past is to be at the trot instead of the walk, the commander includes *Trot* in his command.

(9) At the command *March*, given by the commander of troops, the procedure for individuals and units is as follows:

(a) *Commander of troops.*

1. Having given the command *March* from his post in front of the regiment, the commander, accompanied by his staff, moves at the trot or gallop and takes post 24 yards in front of the column and leads it.
2. When at 6 yards from the reviewing officer, the commander and his staff salute together, turning the head and eyes to the right. The staff returns to the carry with the commander when they have passed 6 yards beyond the reviewing officer. The commander then signals *Disregard* and, followed by his staff, leaves the column and joins the reviewing officer. The commander takes post on the right of the reviewing officer and the members of his staff on the right of the reviewing officer's staff. Sabers are returned in unison with the commander.

3. If the person reviewing the command is not mounted, the commander of troops and his staff, on turning out of the column after passing the reviewing officer, dismount preparatory to taking posts.
4. When the last element of the column has passed the reviewing officer, at the proper time the commander of troops directs the sergeant bugler to sound 1. *Trot*, 2. *MARCH*, or 1. *Gallop*, 2. *MARCH*, if the troops are to pass in review at those gaits.
5. The commander of troops and his staff remain at the post of the reviewing officer until the completion of the review.

(b) *Squadron commanders.*

1. At the proper time after the commander of troops gives the command: 1. *Pass in review*, 2. *MARCH*, the commander of the right squadron commands: 1. *Column of platoons, on first troop*, 2. *MARCH*. Each platoon executes *right turn* in time to take its place in column and pass in review. The commander of the right squadron takes his place in front of the leader of his leading troop and follows the commander of troops at 12 yards.
2. At the proper time the remaining squadrons take their place in column by conforming to the movements of the first squadron.

(c) *Motor elements.*—The motor elements of headquarters troop participate only in the first march past, whether it be at the walk or trot. If the horse elements are to pass in review more than once, the motor elements withdraw from the column at the earliest convenient time after passing the reviewing officer and proceed to their parking area or otherwise comply with orders of the commander of troops.

(d) *Band and field music.*—At the command: 1. *Pass in review*, 2. *MARCH*, given by the commander of troops, the band, from its position on the left of the reviewing stand, commences to play appropriate march music and continues to play during the march past. If the rank of the reviewing officer entitles him to the honor, the buglers sound the *Flourishes* while the standard salutes in passing in front of the reviewing stand.

at the time that the last element of the column passes the reviewing officer, the band ceases to play until the sergeant major sounds the increased gait. It then plays music appropriate to the trot or gallop, as the case may be.

(e) *Salutes.*

1. Salutes are rendered only at the walk. They are rendered when the person saluting arrives at a point 6 yards from the reviewing officer and are held until the person saluting has passed 6 yards beyond that official. The commanders of units to include the platoon salute, turning the head and eyes toward the reviewing officer. The guidons also render the prescribed salute, but the guidon bearers do not execute *eyes right*. The regimental standards salute if the rank of the reviewing officer entitles him to the honor. The reviewing officer returns the salute of the commander of troops and subordinates to include the squadron commanders. The reviewing officer and others at the reviewing stand salute the standards as they pass. Those who accompany the reviewing officer salute only the standards.
2. *Eyes right* will be executed by the troops in the march past at the walk.
3. When the platoon leader of each platoon in the column arrives at a point 6 yards from the reviewing officer, he commands, in cadence with his own salute: 1. *Eyes*, 2. *RIGHT*. When the rank of the platoon has passed 6 yards beyond the reviewing officer the command *Front* is given.

(f) *Advance rifle and raise pistol.*

1. Passing in review at advance rifle at the walk, and raise pistol at the trot, is normal. This procedure may be dispensed with when the commander of troops so orders.
2. In passing in review at the walk, when the individual rifle platoons have made the first change of direction after breaking from line of masses, each rifle platoon, at the command of its leader, executes *advance rifle* on the same ground. When the platoons near the first change of direction beyond the reviewing officer,

they execute *return rifle* at the command of their leaders.

3. In passing in review at the trot, the individual rifle platoons execute *raise pistol* and *return pistol* at the same point that is prescribed for the *advance rifle* and *return rifle*.

4. The review terminates when the regiment has passed the reviewing officer for the last time. Following the review, the regiment may execute such movements as the reviewing officer may desire, or is marched to the stables and dismissed.

(g) *Gaits*.—In passing in review at the walk and trot, the reins are habitually held in the left hand. At the gallop they are held in both hands by all whose right hands are not otherwise engaged.

b. *Dismounted*.—The dismounted review conforms to the mounted ceremony with the following modifications:

(1) *Arms*.—At dismounted reviews troops habitually carry the rifle, if so armed.

(2) *Intervals and distances*.—Intervals and distances conform to the mounted formation, with paces being substituted for yards, with the following exceptions: Distance between units when the regiment is in column of fours: Squadrons, 12 paces; troops, 6 paces; platoons, 3 paces. An additional 3 paces is added to the distance between squadrons immediately in front of and in rear of the standards.

(3) *Salutes and honors*.—See section I.

(4) *Marching*.—When forming and passing in review, dismounted, troops march only in quick time. When leaving the field, after the march past, in order to prevent jamming, it may be necessary for platoons or troops to march at double time for a brief period.

(5) *Formations*.—(a) The regiment being formed in line of masses, at the proper time the commander of troops commands: 1. *Pass in review*, 2. *Column of platoons on 1st squadron*, 3. *MARCH*. The commander of the 1st (right) squadron then commands: 1. *Column of fours on 1st troop*, 2. *MARCH*. At the command *March*, given by the squadron commander, the leading platoon of the right troop executes *fours right* and marches in the new direction. The remaining platoons of the

troop march directly to the front until they arrive on the same ground where the leading platoon executed *fours right*. They in turn execute *fours right* on the same ground and follow in column of fours at the proper distance. When the right troop has thus formed in column of fours, the 2d troop of the right squadron executes the movement in the same manner on the ground directly to its front. The 2d troop is followed by the 3d troop of the squadron. The other squadrons conform at such time as will place their units at the proper distance in column.

(b) When the head of the regiment, marching in column of fours, reaches the proper turning point (indicated by a marker) it executes *column left*. When it reaches the next turning point (indicated by a marker) each platoon executes *fours left* on the same ground, placing the regiment in column of platoons as it passes the reviewing officer.

(6) *Band and field music*.—The post and functions of the band and field music are the same as for mounted review, their post being approximately 25 yards to the left of the post of the reviewing officer.

358. *Squadron review, mounted and dismounted*.—The formations and movements prescribed for regimental reviews are applicable to the squadron.

359. *Brigade review, mounted and dismounted*.—The brigade having been formed as prescribed in section I, the march in review is conducted on the principles explained for the regiment, with the following modifications:

a. Intervals and distances are as prescribed by the brigade commander.

b. The brigade passes in review in the formation prescribed by the brigade commander.

c. The brigade does not present arms, and the ride around the troops is usually dispensed with.

d. The command *Pass in review* is not given. At the sound of *Attention* and *Forward march* by one of the regimental sergeants buglers, who reports to the brigade commander for the purpose, the brigade is broken into the proper formation by regiments in succession.

e. Unless otherwise directed, the review of each regiment terminates when it has passed the reviewing officer and is con-

ducted by its commander to stables or barracks in such a manner as will not delay or interfere with the march of the units in rear.

f. The post of the band, or bands, will be prescribed by the brigade commander. If more than one band is present they will alternate in playing, as directed by the brigade commander.

360. Presentation of decorations.—a. Mounted ceremony.—

(1) A review may be held for the purpose of presenting military medals, and will be held for the purpose of decorating the standards.

(2) For this purpose the regiment is formed as prescribed in section I.

(3) After the reviewing officer has passed around the line and resumed his post, the commander of troops resumes his post and faces the regiment. The staff of the commander of troops does not accompany him to his post but remains with the staff of the reviewing officers. In case it did not accompany the commander of troops in the ride around the troops, it joins the staff of the reviewing officer when the latter resumes his post. The commander of troops orders or signals: 1. **Persons to be decorated and all standards, center,** 2. **MARCH.** At the command **March**, persons to be decorated and all standards move by the most direct route and take post as follows:

(a) The persons to be decorated form in single rank in front of the center of the command and 3 yards in front of the line of squadron commanders. These individuals form in groups according to rank of decorations, within each group according to rank of individuals, highest ranking decoration and individual on the right, respectively.

(b) Standards to be decorated take post, 3 yards in front of the center of the line of persons to be decorated, in groups according to the rank of decoration to be bestowed, highest ranking decoration on the right.

(c) All other standards with standard guards form in single rank, 3 yards in rear of the center of the line of persons to be decorated, and in the same relative position as their location in the command.

(d) The commander of troops takes post 5 yards in front of the center of the leading element. He then commands: 1. **Forward**, 2. **MARCH.** At the command **March**, the commander, the

persons to be decorated, and the standards advance, the band playing. The commander of troops advances toward the reviewing officer. In all ranks the guide is center. The detachment is halted by the commander of troops when he has reached a point 12 yards from the reviewing officer by the command: 1. **Detachment**, 2. **HALT**. He then salutes the reviewing officer and reports, "Sir, the persons (standards) to be decorated are present." The reviewing officer returns the salute and directs that the command be presented. The commander of troops returns to his post in front of the center of his command by moving around the right flank of the persons or standards to be decorated and then directly to his post. On reaching his post he directs the sergeant bugler to sound *Attention* followed by a single blast of the bugle. The regiment is presented in the manner prescribed in section I. The persons to be decorated and the regimental standard salute at the appropriate blast of the bugle.

(4) A designated staff officer then reads the order announcing the awards. After the reading of the order the reviewing officer, accompanied if necessary by his staff or designated members thereof, advances toward the standards and the line of persons to be decorated. The reviewing officer, those members of his staff who have advanced with him, the standard bearers of standards to be decorated, and the persons to be decorated then dismount. The reviewing officer, after turning over his horse to an orderly, fastens the appropriate streamers to the staffs of the standards and pins the decoration on the left breast of each person to be decorated.

(5) The reviewing officer then directs the commanding officer of the troops to march the command in review and resumes his post. The persons decorated form line on the left of the reviewing officer, or otherwise as directed, and the standards return to their post at the walk.

b. Dismounted ceremony.—(1) The regiment is formed in the same manner as for a dismounted review.

(2) The procedure of presenting decorations corresponds to that prescribed for the mounted formation.

(3) The regiment is presented as prescribed for dismounted ceremonies in section I.

SECTION III

PARADES

361. Purpose.—Parades are formations wherein the color, dignity, and pageantry of military ceremonies are used to instill in the command a sense of pride, esprit, duty, and smartness.

362. Regimental parade.—*a. Mounted.*—(1) The regiment is formed for parade as prescribed in section I. The band and field music take position on the opposite side of the parade ground from the regiment in a position analogous to that taken for a review and remain in that location throughout the parade.

(2) The regiment being formed, the regimental commander and his staff, having taken post at a convenient distance in front of and facing the center of the regiment, draw saber. The regimental commander commands: **SOUND OFF.**

(3) At the command **Sound off** the music plays an appropriate march.

(4) If the parade is held at retreat, immediately after the **Sound off** the buglers sound *Retreat*. At the last note of *Retreat* the regimental commander directs the sergeant bugler to sound *Attention*, followed by a single blast of the bugle. At the bugle blast, all officers present sabers and the regimental standard and guidons salute. The band plays *The National Anthem*, or, in the absence of a band, the buglers play *To the Standard*.

(5) When the music has ceased, the regimental commander, with his staff, resumes the carry saber and directs the sergeant bugler to sound a single blast of the bugle. At the bugle blast the officers, guidons, and the regimental standard resume the carry. The regimental commander then directs the adjutant: "Receive the reports, sir." The adjutant advances at the trot or gallop toward the center of the line, halts midway between it and the line of squadron commanders and commands: **REPORT.** The squadron or other unit commanders, commencing on the right, successively salute and report, "First (or second, third, provisional) squadron present or accounted for," or "(So many officers and men absent." The adjutant returns the salute of each squadron commander.

(6) The adjutant then turns about, salutes, and reports, "Sir, all present or accounted for," or "Sir (so many) officers or men absent." The regimental commander returns the salute and directs, "Publish the orders, sir." The adjutant turns about, cautions, "Attention to orders," and publishes the orders.

(7) The adjutant then commands: 1. *Squadron, troop commanders, and guidons*, 2. *Center*, 3. *Trot*, 4. *MARCH*. At the command *Center*, squadron and troop commanders face to the right or left, depending upon their location with respect to the center of the regiment; the guidons move forward at a walk until they are one horse's length in rear of the line of troop commanders, face toward the center of the regiment and halt. At the command *March*, given when all guidons have faced toward the center of the regiment and halted, squadron commanders, troop commanders, and guidons close toward the center of the regiment at the trot. When they arrive at a point near the center of the regiment they halt individually and face toward the regimental commander. The troop commanders and guidons close on the line of squadron commanders. They are now in three lines without interval, the squadron commanders in the first line, the troop commanders in the second, and the guidons in the third; the distance between successive lines to be one horse's length. The senior then commands: 1. *Forward*, 2. *Guide center*, 3. *Trot*, 4. *MARCH*. The assembled officers and guidons advance, the music playing. At 6 yards from the regimental commander, the senior commands: 1. *Officers*, 2. *HALT*. The music ceases playing, the officers and guidons halt. The senior then commands: 1. *Present*, 2. *SABER*. The assembled officers execute *present saber*, and the guidons salute. The regimental commander returns the salute. The senior squadron commander then commands: 1. *Carry*, 2. *SABER*. The regimental commander then issues such instructions to the assembled officers as he deems necessary and may invite any or all of them to join his staff. Ordinarily, he invites the squadron commanders. The officers so invited then pass to the right and rear of the regimental commander and form in line on the left of the commissioned staff. The regimental commander then commands: 1. *Officers and guidons* (or *Guidons*), 2. *Posts*, 3. *Trot* (or *Gallop*), 4. *MARCH*. At the command *March*,

each troop commander, followed by his guidon, breaks to the right or left depending upon their position in regard to the center and move at the trot (or gallop) by the shortest route to their respective troops and take their posts. If the troop commanders have joined the regimental commander's staff, the guidons execute this movement alone. The senior officer returning to the regiment takes command and gives the necessary commands for causing it to pass in review. In the event that no squadron or troop commanders return to the regiment, the senior mounted officer remaining with the troops marches the regiment in review. The senior officer in each squadron takes command of the squadron. The general provisions given for reviews in paragraph 356 will govern.

b. Dismounted.—The formations and conduct of a dismounted parade correspond to the mounted type with the following exceptions and modifications:

(1) *Formation.*—The regiment is formed as prescribed in section I for dismounted ceremonies.

(2) *Marching.*—All movements are executed in quick time unless otherwise specified.

(3) *Parade rest.*—The regiment having been formed and reported by the adjutant, the regimental commander directs **Parade rest**. This movement is executed by squadrons successively from the right. Commanders of other than the right squadron give this command when the movement has been completed by the squadron on their immediate right.

(4) *Sound off.*—When all units of the regiment have assumed parade rest, the regimental commander commands: **SOUND OFF**, and the music follows a procedure similar to that prescribed for mounted parade.

(5) *Retreat.*—If the parade is held at retreat, immediately after the buglers have sounded *Retreat*, the regimental commander directs **Present arms**. This command is executed by squadrons successively from the right. When all units of the regiment have executed **present arms**, the regimental commander and staff execute **present saber** and the band plays *The National Anthem* or the buglers sound *To the Standard*. When the music has ceased playing, the regimental commander directs **Order arms**, which is executed by squadrons successively from the right.

(6) *March in review*.—The march in review is identical with that prescribed for dismounted reviews in paragraph 357 *b*.

(7) *Return to posts*.—After issuing his instructions to the assembled officers, the regimental commander commands: 1. *Officers and guidons* (or *Guidons*), 2. *Post*, 3. *MARCH*. At the command *Post*, the officers and guidon bearers face about. At the command *March*, they move forward at quick time, guiding to the center. The senior commands: 1. *Officers and guidons* (or *Guidons*), 2. *HALT*, so as to halt with the guidons 6 paces from the line. He then commands: 1. *Posts*, 2. *MARCH*. At the command *Posts* all face outward. At the command *March*, they step off in succession at 4-pace distance, resume their posts, face to the front, and come to order saber or guidon.

363. *Squadron parade, mounted and dismounted*.—The formations and movements prescribed for regimental parades are applicable to the squadron, with necessary and obvious modifications.

SECTION IV

ESCORTS

364. *Purpose*.—*a*. Escorts are ceremonies for the purpose of—

(1) Rendering honors to a national or regimental standard.

(2) Escorting personages of high rank, civil or military, upon their arrival or departure from a military post or other place.

(3) Escorting the remains of a person entitled to the honor to the final resting place.

b. The first are called escorts to the standard, the second escorts of honor, and the third funeral escorts.

365. *Escort to the standard*.—*a*. *Mounted ceremony*.—(1) When a new national or regimental standard or both are issued to a regiment, they are received with the ceremony of escort to the standard.

(2) If only the regimental standard is received, the national standard does not attend the ceremony. If only the national standard is received, the regimental standard attends the ceremony but remains at its post in the regiment during the actual reception of the national standard. If both standards are received, both standard bearers attend the ceremony and receive the standards.

(3) The regiment is formed in line of masses as prescribed in paragraph 350. The post of the band is on the opposite side of the field from the regiment in a position analogous to that taken at a review or parade. In this case the assembled buglers do not form with the band. The field music, mounted, takes position 12 yards to the right of and in continuation of the final line upon which the regiment forms. The sergeant bugler assists the adjutant in forming the regiment, following which he joins the staff of the regimental commander.

(4) Upon an indication from the regimental commander, the field music without playing, moves straight to the front until clear of the line of squadron commanders, changes direction to the right, and halts. The regimental commander then commands: 1. **Troop A (B, C, etc.)**, 2. **ESCORT THE STANDARD**. The troop thus detailed as escort is previously designated by the regimental commander.

(5) The designated troop is marched by its commander to the front, is turned to the right, and halted in rear of the field music. The standard bearer (or bearers) takes position between the second and third platoons of the troop. The troop commander then commands: 1. **Escort**, 2. **Forward**, 3. **MARCH**, and marches the escort, without music, to the place where the standard is being temporarily kept. He then forms the escort in line facing the standard and halts it, the field music on the right, the standard bearers in the line of file closers of the troop.

(6) The senior lieutenant of the troop, the standard bearers, and a sergeant designated by the troop commander dismount and receive the standards. In entering a building to obtain the standards, the standard bearer (or bearers) is preceded by the lieutenant and followed by the sergeant.

(7) The standard bearers come out, followed by the lieutenant and the sergeant, and halt before the entrance, mount, and form in line facing the escort, the lieutenant on the right, the sergeant on the left. The troop commander directs the senior bugler to sound *Attention*. The officers present saber, the guidon salutes, and the field music sounds *To the Standard*.

(8) The troop commander then resumes the carry and directs the senior bugler to sound a blast at which all officers, the regimental standard and the guidon resume the carry. The lieu-

tenant and the sergeant resume their posts. The troop commander forms his troop in column of platoons to the right and halts it. The standard bearers place themselves midway between the second and third platoons.

(9) The troop commander gives the necessary commands for marching the escort back to the regiment. The field music plays and the march is so conducted that when the escort arrives at about 100 yards in front of the right of the regiment the direction of march is parallel to the regimental front. When the standards arrive opposite their post in the regiment the escort is formed in line to the left, facing the regiment, and halted. As the line is formed the standard bearers, without halting, pass between the platoons and halt 10 yards in front of the regimental commander.

(10) The standard bearers being halted, the regimental commander faces the regiment and directs the sergeant bugler to sound *Attention*, at the first note of which all the officers and the guidons salute. He then faces to the front and with his salute the field music sounds *To the Standard*. The regimental standard, if at its post in the regiment, salutes. The regimental commander then faces about and directs the sergeant bugler to blow a blast, at which time all officers, guidons and the regimental standard, if at its post in the regiment, resume the carry. The standard bearers then take their places in the standard guard.

(11) During this presentation officers in the escort present and carry saber as indicated above, after which the escort troop commander directs the field music to join the band, forms the troop in column, and marches it to its place in line, passing around the left flank of the regiment. The field music marches by the right flank and joins the band. The band does not take part in the ceremony until the regiment is marched in review.

(12) The regiment is then usually marched in review at least once. The standard is escorted by the standard guard to the place of permanent safekeeping.

(13) If the entire regiment is not available for the ceremony of escort to the standard, it may be executed by a squadron according to the above principles.

b. Dismounted ceremony.—The escort to the standard, dismounted ceremony, is exceptional; when held it will conform to the principles of the mounted ceremony, except that the band forms part of the escort and performs the duties prescribed for the field music in the mounted ceremony. After the presentation, the band is marched to its post as indicated for reviews in section II.

366. Escort of honor.—*a.* The organizations for an escort of honor are designated by the commanding officer.

b. An officer is appointed to attend the official escorted and to bear such communication as he may desire to send to the commander of the escort.

c. The escort forms in line opposite the place where the official is to present himself, the music on the flank of the escort toward which it will march. When the official has taken position from which to receive the honors, the commander of the escort, having called his unit to attention, faces the personage and salutes. At this time the honors due his rank are rendered. (See AR 600-25 and AR 600-30.) The honors having been rendered, the commander of the escort returns saber, dismounts, turns his horse over to an orderly, and approaches the official. If the official inspects the escort, the commander accompanies him, taking position on his right. The inspection being completed, the commander again salutes the official, mounts, and rejoins the escort.

d. When necessary to form the escort at a considerable distance from the point where the official is to be received, for example, where a courtyard or wharf intervenes, a double line of troopers, with intervals, facing inward, may be posted from that point to the position of the escort. When the official passes the line of troopers, the latter are then relieved and join the escort.

e. The escort is then formed into column of platoons or fours and takes up the march, the official and his staff or retinue taking position in rear of the column. Several officers or non-commissioned officers may be detailed to ride on either side of the official's conveyance as a personal bodyguard. When the official leaves the escort, line is formed and the same honors are rendered as before.

f. Scout-car escort.—When weather conditions or terrain factors make it desirable, the scout-car platoon, acting alone or in conjunction with mounted elements, may be used for escort duty. Local conditions may necessitate modifications of the procedure described below. However, the method described should be followed as a general guide for this duty.

(1) The platoon will be formed in line opposite the place where the official is to appear. The interval between cars may be adjusted to suit the location. Normally it is 5 yards. The car crews dismount and form line 3 paces in front of their cars. The car doors are closed. The platoon commander takes post 5 paces in front of the command car.

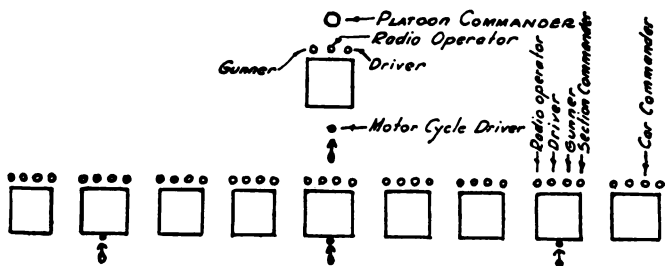


FIGURE 38.—Scout-car platoon formed for escort.

(2) Upon the approach of the official the platoon commander calls his unit to attention, faces the official being honored and salutes, while the music renders the appropriate honors.

(3) The platoon commander accompanies the official upon his inspection of the platoon, placing himself on the official's right. Upon completion of the inspection, or in case the official does not inspect the escort, the platoon commander commands: **MOUNT**, and the car crews enter their cars. The platoon is then formed in column of sections with reduced distances, the official and party taking their position in rear. If conditions make such action preferable, the official and party may be placed between sections of the platoon instead of at the rear. When the official arrives at his destination the honors described above will again be rendered.

(4) In case it is impractical to dismount the crews from the cars, they will remain seated at attention while the platoon com-

mander executes the hand salute from a position on the right front running board of his car.

(5) If sufficient music is available, part of it should be located at the place where the official is received and the remainder at the point where he leaves the escort. When the scout-car platoon alone acts as the escort, it will usually be necessary for field music to ride in the cars in order to render the honors at the proper time. If the band is present its location in regard to the platoon conforms to the procedure followed when the escort consists of mounted troops.

367. Funeral escort.—*a.* Six pallbearers are selected, if practicable, from the grade of the deceased. If the deceased was a commissioned officer, the casket is borne by noncommissioned officers who are designated as casket bearers.

b. At the funeral of a mounted officer or enlisted man, his horse, in mourning caparison, follows the caisson or hearse.

c. The escort is formed in line opposite the chapel or the quarters of the deceased, the band or assembled buglers on the flank toward which the column is to march.

d. (1) If the escort is dismounted, upon the appearance of the casket, the commander of the escort commands: 1. **Present**, 2. **ARMS**, faces about and salutes, and the band, if present, plays a dirge. When arms are presented at a funeral, such special honors as may be due the deceased are rendered. Other organizations are brought to attention by their commanders, who then salute. At the conclusion of the music, the commander of the escort brings his unit to order arms and himself resumes the order saber if so armed.

(2) If the escort is mounted, the procedure is identical for that prescribed for the escort dismounted except that arms are not presented by the escort proper, the commander only rendering the prescribed saber salute.

e. The casket having been placed on the caisson or in the hearse, the escort is formed in column of platoons or fours. The procession is formed in the following order: (1) band, (2) escort, (3) clergy, (4) casket and pallbearers, (honorary pallbearers, when present, in column of files on each side of the casket, the leading member of each column opposite the front wheels of the caisson or hearse; active pallbearers in column of twos immediately in rear of casket), (5) mourners, (6) mem-

bers of the former command of the deceased, (7) other officers and enlisted men, (8) distinguished persons, (9) delegations, (10) societies, (11) other civilians. Officers and enlisted men are in order of rank, seniors in front.

f. The escort marches slowly, the band, if present, paying a dirge. If the distance to the place of interment is considerable, the escort may march at ease until it approaches the burial ground when it is brought to *Attention*.

g. Should the entrance to the cemetery prevent the caisson from accompanying the escort to the grave, the column is halted at the entrance long enough to take the casket from the caisson, when it is again put in march. Cavalry, when unable to enter the enclosure, turns out of the column, forms line facing it, and salutes as the remains pass. If appropriate, the cavalry may be dismounted and marched to the cemetery on foot.

h. Prior to the funeral, the necessary arrangements are made by the commander of the escort or a designated officer and the clergyman. The column having arrived opposite the grave, line is formed facing it. The casket is carried along the front of the escort to the grave. The band, if present, plays a dirge and the casket is placed over the grave. After the coffin has been lowered into the grave, officers and men bow their heads during the reading of the services. The funeral service concluded, the commander causes the escort, if not already dismounted, to dismount. He then forms the escort at a convenient place opposite the grave and causes it to fire three volleys of blank cartridges over the grave, the *muzzles of the rifles being elevated*. When the escort is greater than a squadron, one squadron only is designated to dismount and fire the volleys. A bugler at the head of the grave sounds taps, which concludes the ceremony.

i. The escort is then formed in column, marched to the point of assembly and dismissed. The band does not play until it has left the inclosure.

j. Funeral escorts, dismounted, are conducted according to the same principles. After the coffin has been placed over the grave the command is brought to order arms. After the coffin has been lowered into the grave, the command is brought to parade rest, and officers and men bow their heads during the reading of the service.

k. At a military funeral all persons in the military service in uniform or civilian clothes, attending in their individual capacity, will stand at attention uncovered and hold the headdress over the left breast while the casket is being carried to and lowered into the grave, while taps is being sounded, and during the services at the grave. During the prayer they also bow their heads. In inclement weather the headdress may be raised and held over the head. The procedure indicated applies to the honorary pallbearers and to the active pallbearers except when the handling of the casket prevents.

l. When the remains are escorted from the quarters of the deceased or other place to the church, before the funeral service, arms are presented and appropriate honors rendered upon receiving them and as they are borne into the church. Likewise, in cases where the remains are conducted to a crematory for cremation, the escort is presented upon receiving the remains and while the remains are being borne into the crematory. During ceremonies at the crematory the firing of volleys and the sounding of taps are omitted. However, after cremation, if the ashes are interred with military honors, the escort is conducted in the usual manner and the usual procedure is adhered to at the grave. When services are held at the crematory, the escort remains there during the services.

SECTION V

INSPECTIONS

368. Rifle troop inspection.—*a. Mounted.*—The troop is normally inspected in line. It may be inspected in column of platoons. The inspection is divided into two main parts; first, an inspection of the troop while mounted, during which attention is paid to the general appearance of the personnel, animals, and equipment. Second, a more detailed inspection of the troop after dismounting, during which rifles, pistols, light machine guns, and the special loads carried on pack animals are inspected. Either part of the inspection may be omitted when appropriate and desirable. It is often preferable to inspect rifles, pistols, and light machine guns while in a dismounted formation; for example, before leaving the barracks.

(1) (a) The troop being in line at the halt, the troop commander takes post 12 yards in front of the right flank of the troop, faces to the left, draws saber if the dress saber is carried, and commands: 1. *Prepare for inspection*, 2. *MARCH*. At the command *March*, posts are taken as follows:

1. Platoon leaders of the rifle platoons move 6 yards straight to the front and halt on line with the troop commander, then draw saber.
2. The first sergeant, the bugler who accompanies the troop commander, and the guidon takes post in that order from right to left on the right of the rank of the rifle platoons.
3. The platoon sergeants and file closers of the rifle platoons rein back and halt 6 yards in rear of the rank of their respective platoons.
4. The platoon leader of the light machine-gun platoon commands: 1. *Fours left*, 2. *MARCH*; then, 1. *Fours right*, 2. *MARCH*; and 1. *Platoon*, 2. *HALT*, in order to place the light machine-gun platoon on the left of the left rifle platoon at an interval of 10 yards.
5. The leader of the light machine-gun platoon takes post in front of the base squad and on line with the leaders of the rifle platoons, then draws saber.
6. If the troop headquarters detachment is present the senior noncommissioned officer present with it causes it to take post 10 yards on the left of the light machine-gun platoon and in a formation corresponding to that of the light machine-gun platoon.

(b) When all have gained their posts, each trooper alines to the right without command. In the light machine-gun platoon, they also cover off from head to rear. The guidon is the base of the alinement. The troop commander causes any inaccuracies in alinement and cover to be corrected.

(c) The troop commander then inspects the platoon leaders. After being inspected, the platoon leaders turn about and remain at ease, facing their platoons, unless directed by the troop commander to accompany him during the inspection.

(d) As the troop commander approaches, the bugler raises his bugle, bell down, to the height of and in front of his chin, turns it so as to present both sides to the troop commander, and

then returns it to its former position. The guidon remains at the carry.

(e) The troop commander then inspects the front ranks of rifle platoons, then the light machine-gun platoon, and the troop headquarters detachment.

(f) The troop commander then returns to the right and inspects the platoon sergeants and file closers of the rifle platoons.

(2) (a) The first part of the inspection being completed or dispensed with, the troop commander commands: 1. *Prepare to dismount*, 2. *DISMOUNT*. The bugler on the right of the rifle platoons rides forward to take the troop commander's horse, the first sergeant moves forward with the odd numbers, and the guidon stands fast. The troop commander and the platoon leaders return saber and dismount. The troop commander's horse is held by the bugler and each platoon leader's horse is held by his platoon messenger. The inspection is made without forming ranks.

(b) If the second part of the inspection is made by the troop commander, he first inspects the rifles, then the pistols, then the light machine guns of the light machine-gun platoon and, last, the loads carried on the pack animals of the troop headquarters detachment. During the inspection, the platoon leaders face their respective platoons and stand at ease. The troop commander may require the platoon leaders to inspect their platoons and the first sergeant to inspect the troop headquarters detachment. When inspecting the troop headquarters detachment, the first sergeant turns over his horse to a member of that detachment.

(c) If rifles are to be inspected, the inspector cautions: ***RIFLES WILL BE INSPECTED.*** At this caution each trooper armed with the rifle or pistol takes the snaffle reins off his horse's neck, passes his right arm through the rein (bight, or loop, of the rein resting on the shoulder), and takes a position similar to stand to horse, with the rifle at the right order. As the inspector approaches the right of the rank of odd numbers the first trooper on the right, if armed with the rifle, executes ***inspection arms.*** The inspector takes the rifle, grasping it with his right hand just above the rear sight, the trooper dropping his hands to his sides. The inspector inspects the rifle and.

with the hand and the rifle in the same position as in receiving it, hands it back to the trooper. The latter takes the rifle with the left hand at the balance, executes *port arms*, and comes to the right order. As the inspector returns the rifle the next trooper on the left executes *inspection arms*, and so on throughout the rank. Should the rifle be inspected without handling, each trooper executes *port arms* and *order arms* as soon as the inspector passes to the next trooper.

(d) If pistols are to be inspected, the inspector cautions: ***PISTOLS WILL BE INSPECTED.*** At this caution each trooper armed with the rifle inserts his rifle in his scabbard. As the inspector approaches, the first two troopers on the right, if armed with the pistol, execute *inspection pistol*. To inspect the pistol closely the inspector grasps it with his left hand, makes such examination as he desires, and hands the pistol back to the trooper in the same position as that in which the inspector took the weapon. The trooper takes the pistol with the right hand as in *inspection pistol* and executes *return pistol*. As the inspector hands the pistol back to the first trooper and comes in front of the second trooper, the third trooper executes *inspection pistol*, and so on throughout the rank. Should the pistols be inspected without handling, each trooper executes *return pistol* as the inspector passes to the next trooper.

(e) If the light machine guns are to be inspected, the inspector cautions: ***LIGHT MACHINE GUNS WILL BE INSPECTED.*** Each gunner and assistant in the light machine-gun platoon pass their reins to the driver. The gunner and assistant gunner unpack the light machine gun and mount gun on tripod in position 6 yards in front of the pack animal's head then take positions in rear of gun. The inspector inspects the light machine gun. He may, for this purpose, require the gunner to exhibit the working parts of the gun. As soon as the inspector has passed, each gunner and assistant gunner repack the light machine gun on the pack animal, return to their own mounts, and take a position similar to stand to horse, with the right arm through the snaffle reins, the bight of the reins resting on the shoulder.

(f) If the loads carried on the pack animals of the troop headquarters detachment are to be inspected, the inspector cautions: ***LOADS WILL BE INSPECTED.*** The senior non-

commissioned officer present with the detachment causes the loads to be unpacked and displayed as may be directed by the inspector. As soon as the inspector has completed his inspection of the loads they are repacked on the pack animals.

(g) The inspection being completed, the troop commander commands: 1. **Prepare to mount**, 2. **MOUNT**, 3. **FORM RANK**. At the first command the troopers replace their snaffle reins on their horses' necks and, if they have not already done so, replace their rifles in their scabbards. At the second command all mount, at the third command ranks are re-formed. The troop commander then commands: **POSTS**, at which command all troopers out of ranks resume their normal posts. The troop is then led from the field and the light machine-gun platoon and the troop headquarters detachment resume their normal positions in the troop as it moves out.

b. *Dismounted*.—(1) The troop is habitually inspected, dismounted, in line with 3 yards interval between platoons. The light machine-gun platoon forms in single rank on the left of the third rifle platoon with 3 yards interval, and the troop headquarters detachment forms in single rank on the left of the light machine-gun platoon with 3 yards interval. The gunners of each light machine-gun squad are on the right of their respective gun crews. The guidon is on the right of the rank.

(2) The inspection is analogous to troop inspection, mounted. (See *a* above.) At the command: 1. **Prepare for inspection**, 2. **MARCH**, the first sergeant and one bugler take posts as in mounted inspection. Platoon commanders and file closers stand fast.

(3) Rifles and light machine guns are inspected first. Light machine guns are placed 2 yards in front of their gunners. If pistols are to be inspected, rifles are stacked and the troop is marched backward 2 yards prior to the inspection of pistols. After the inspection of pistols, the rank is moved forward and stacks are broken. The troop commander commands: **POSTS**, then turns the troop over to the first sergeant for dismissal.

(4) When the troop is dismissed, arms are put away and equipment is removed. If quarters are to be inspected, the troopers stand uncovered near their respective bunks. In camp they stand covered in front of their tents.

(5) If equipment is to be inspected in quarters or camp, each trooper arranges the prescribed articles on his bunk or in front of his half of his shelter tent as prescribed in chapter 3, BFM, volume I.

(6) The troop commander, usually accompanied by the platoon leaders, then inspects the quarters or camp. The first sergeant precedes the troop commander and calls the troopers to attention on entering each squad room or approaching the tents. The men stand at attention but do not salute.

369. Machine-gun troop inspection.—*a. Mounted.*—The machine-gun troop is habitually inspected, mounted, in line. The inspection is analogous to rifle troop inspection, mounted. (See par. 368*a*.)

(1) (*a*) The troop being in line at the halt, the troop commander commands: 1. ***Prepare for inspection***, 2. ***MARCH***. At the command ***March*** the forward echelon of the headquarters detachment moves straight to the front. Each squad and the rear echelon of the headquarters detachment execute ***column of twos, 6 yards distance***. When all twos have gained a distance of 6 yards between successive twos, the troop commander commands: 1. ***Troop***, 2. ***HALT***. At the command ***Halt***, all halt, except the forward echelon of the headquarters detachment, which immediately forms line, the second four moving to the left, the third four to the right of the leading four, and then halts.

(*b*) All dress to the right and aline themselves without command. The troop commander causes any inaccuracies in alinement or cover to be corrected, then takes post.

(*c*) The troop commander then inspects the forward echelon of the headquarters detachment and the leader of the first platoon who thereafter accompanies him during the inspection of the first platoon. Each squad in the platoon is inspected in turn, the twos from head to rear in each squad being inspected in that order. The second and third platoons and the rear echelon of the headquarters detachment are inspected in a similar manner. The troop commander observes the general appearance of the personnel, animals, and equipment.

(2) (*a*) If the second part of the inspection is to be held, the troop commander gives the command: 1. ***Prepare to dismount***, 2. ***DISMOUNT***. At the first command, the odd numbers

of the forward echelon of the headquarters detachment move 4 yards to the front and halt. In the platoons and the rear echelon of the headquarters detachment, the troopers on the left of each two open out to the left sufficiently to allow the troopers to dismount. At the second command, all dismount and stand to horse, troopers armed with the rifles at the left order. The troop commander's horse is held by a bugler, those of the platoon leaders by one of their platoon messengers.

(b) Rifles and pistols are inspected as prescribed in paragraph 368.

(c) Having completed the inspection of rifles and pistols, if machine guns and loads are to be inspected, the troop commander commands: 1. **Assemble**, 2. **MARCH**, and cautions: **MACHINE GUNS AND LOADS WILL BE INSPECTED**. The forward echelon of the headquarters detachment does not form rank but stands to horse with open ranks, dismounted. The second to fourth twos, inclusive, in each squad and the rear echelon of the headquarters detachment move forward leading the animals and resume their normal positions in column. Platoon headquarters and squad leaders stand fast.

(d) The troop commander commands: **UNPACK**. The troop proceeds as in executing *action front*, but in a deliberate manner, and mounts each gun 10 yards in front of the guide (No. 4) of each squad and pointing directly to the front. No. 3 spreads the spare parts roll open on the ground, long edges parallel to the front, center of the front edge of the roll 1 yard in rear of the foot of the trail leg of the tripod. He then places the spare parts and asbestos mittens on the roll. He places the box of ammunition carried on pack animal No. 1 on the ground to the right of the spare parts roll, long edge perpendicular to the front, hinge to the rear, lid raised, belt with cartridges exposed. No. 1 removes the back plate, bolt, lock frame, barrel extension, and barrel from the gun and places them on the front edges of the spare parts roll. Nos. 1 and 2, working together, No. 1 on the off side, No. 2 on the near side, unpack pack animal No. 2 and place the boxes of ammunition in a line on the ground in rear of the spare parts roll, center of the line of boxes 1 yard in rear of the center of the rear edges of the spare parts roll, 6 inches between boxes. Each box is prepared for inspection in the

same manner as the box removed from pack animal No. 1. Nos. 1 and 2 unpack pack animal No. 3 in a similar manner and place each line of boxes 1 yard in rear of the line of boxes already removed from the preceding pack animal. The top load of pack animal No. 3 is placed 6 inches to the right of the corresponding line of boxes. All boxes are accurately aligned and covered from head to rear. No. 2 stands at attention on the right of the ammunition box of pack animal No. 1, No. 1 on his right, and the squad leader on the right of No. 1; No. 3 stands at attention on the right of the load of his respective animal covering No. 1. Each platoon leader takes post on the right of the squad leader of his right squad.

(e) In the rear echelon of the headquarters detachment, the mess sergeant and the miscellaneous private together unpack the four pack animals carrying the kitchen outfit and rations and dispose the loads for inspection on the ground 3 yards to the right of their respective animals and on line with the animals' heads, which he turns over to the mechanic on his left to hold. The mess sergeant takes post, dismounted, on the right of the kitchen outfit, and the miscellaneous privates on the right of the rations. Equipment is covered off from head to rear.

(f) The inspector inspects gun, instruments, ammunition, spare parts, and accessories of each squad in turn and the loads carried by the pack animals of the rear echelon which he may require to be opened and their contents displayed on the ground.

(g) The inspection of machine guns and loads being completed, the troop commander commands: **PACK**. Guns and loads are repacked. The troop commander gives the necessary commands for mounting the troop. The forward echelon of the headquarters detachment forms rank without command. The troop is then led from the field and dismissed.

b. Dismounted.—Dismounted, the machine-gun troop is formed and inspected in the same manner as the rifle troop. (See par. 368 *b.*) Machine guns and accessories are not carried to the dismounted inspections.

370. Headquarters troop inspection.—*a. Mounted.*—The headquarters troop is normally inspected in a mounted formation with both animals and motor units present. The mounted

inspections consists of two parts—part 1, in which the personnel remain mounted on horses or vehicles during the inspection; and part 2, in which the personnel dismount from horses and vehicles.

(1) *Part 1 inspection.*—(a) *Formations.*—The troop normally forms for inspection with the platoons arranged in the following order from right to left: (1) The communication platoon (with troop headquarters and the staff platoon in rear) (2) The scout-car platoon; (3) The transportation platoon. Because of the large number of motor vehicles in the troop, a more definite formation is not prescribed.

(b) *Conduct of inspection.*—The inspection is conducted in a manner similar to that prescribed for the rifle troop (mounted). The posts of officers, guidon, file closers, etc., conform to corresponding posts in the rifle troop. None of the personnel, whether mounted on horses or motors, dismount. Only the platoon leaders who are mounted on horses accompany the troop commander during the inspection of their units. All officers and men mounted on motor vehicles remain seated during the mounted inspection.

(2) *Part 2 inspection.*—(a) The inspection described in (1) above having been completed or dispensed with, to proceed with the second part of the mounted inspection the troop commander directs the platoon leaders: **DISMOUNT YOUR PLATOONS.** The platoon leaders face about and command: 1. *Prepare to dismount,* 2. **DISMOUNT.**

(b) The positions and posts of the personnel of the horse elements conform to that of a rifle troop. The crews of scout cars form in line 2 paces in front of their vehicles in the following order from right to left: Car commander, gunner, driver, radio operator. Truck and motorcycle drivers form 2 paces in front of their vehicles. Other enlisted personnel fall in on the same line, noncommissioned officers on the right of the driver, others on his left. Platoon leaders of the scout-car and transportation platoons take post 2 paces in front of the drivers of their command vehicles.

(c) The troop commander inspects the platoons successively from right to left, the platoon leaders accompanying him on the inspection of their units. Pack animal loads are inspected in a similar manner to those of a rifle troop.

(d) The machine guns of the scout-car platoon are placed 5 paces in front of the cars, with 1 foot interval between the rear of the tripods, in the following order from right to left: Submachine gun, caliber .30 light machine gun, caliber .50 machine gun, caliber .30 light machine gun. The barrels of the guns are pointed to the front, the bolts are back, and the covers up. The submachine gun is placed on its canvas cover and the other guns on their tripods. The tool kit and the spare parts kit of the submachine gun are placed to the left of the stock of the gun and the kits of the other guns between the legs of the tripods with the tool kit on the right. The cleaning rod of the submachine gun is laid on the canvas cover to the left of the gun; those of the other guns are placed on the traversing bar. Hoods of the cars are raised from the left side. The doors of scout cars are left open at an angle of 90°.

(e) The inspection of the transportation platoon conforms to that of the scout-car platoon, the equipment being arranged in a similar manner. Personnel armed with rifles carry them when they dismount from the trucks. Hoods of vehicles are raised from the left side in order that motors may be inspected.

(f) As the inspection of each platoon is completed, the inspecting officer normally directs that it return to barracks, stables, or park, as the case may be.

b. Dismounted.—The dismounted inspection of headquarters troop corresponds to the dismounted inspection of a rifle troop. (See par. 368b.)

371. Regimental inspection.—*a. Mounted.*—The regiment is normally inspected, mounted, in column of troops in line.

(1) The regiment being in column of troops in line at the halt, the regimental commander and staff draw saber. The regimental commander turns about, the staff standing fast, and commands: 1. *Prepare for inspection*, 2. *MARCH*. The lieutenant colonel and the regimental staff officers form line in order of rank 24 yards in front of the center of the leading squadron. The sergeant major and the bugler take post 3 yards in rear of the staff. The standard guard, conducted by the senior sergeant standard bearer, takes post 6 yards in front of the center of the leading squadron. Each squadron commander prepares his squadron for inspection and takes post

12 yards in front of the right flank of the leading troop of his squadron. If the machine-gun troops and the headquarters troop are not organized as a provisional squadron, the troop commanders prepare their troops for inspection then take posts 12 yards in front of the right flank of their troops.

(2) The band may attend mounted regimental inspection in which case it takes post as directed by the regimental commander and plays during the inspection.

(3) The regimental commander inspects his staff and then commands: *REST*. He returns saber and inspects the units of his regiment in turn. The staff returns saber with the regimental commander and accompanies him during the inspection. The commander of each unit (band, standard guard, squadrons, machine-gun and headquarters troops) as the regimental commander approaches, calls his unit to attention and, without saluting, gives the necessary commands to carry out the inspection directed by the regimental commander. He, after being inspected, accompanies the regimental commander on the latter's right. The band is inspected as prescribed in BFM volume VIII.

(4) As the inspection of each unit is completed the regimental commander causes it to be marched off and dismissed or he directs it to rest until the completion of the inspection of the regiment, which he then conducts as a unit in any manner he may desire.

b. Dismounted.—(1) The regiment is not inspected, dismounted, as a unit. If the troops of the regiment are to be inspected, dismounted, the regimental commander, accompanied by his staff, usually makes an inspection of each troop in turn or of such troops as he may desire to inspect. He may designate staff officers to assist in the inspection.

(2) At inspection of quarters or camp, the regimental commander, if he inspects, may be accompanied by his staff or by all or such of the officers of the regiment as he may designate.

372. Squadron inspection.—*a. Mounted.*—The squadron inspection, mounted, is conducted in a manner similar to that of the regiment.

b. Dismounted.—(1) The squadron is not inspected, dismounted, as a unit. If the troops of the squadron are to be

inspected, dismounted, the squadron commander, accompanied by his staff, usually makes an inspection of each troop in turn.

(2) At inspection of quarters or camp the squadron commander is accompanied by his staff or by all or such of the officers of the squadron as he may designate.

CHAPTER 4

SCOUTING AND PATROLLING, MOUNTED

SECTION I

MOUNTED SCOUTING

373. Scope.—This section contains principles for the special guidance of individual mounted scouts. Every good mounted scout must be thoroughly grounded in the principles of dismounted scouting which are found in chapter 9, BFM, volume I. That manual gives all the details of maintaining directions, observing, searching ground, estimates of strength of enemy units, tracking, obtaining identifications, and the other actions of an expert scout from the time he dismounts from his horse until he remounts.

374. Preparation.—Upon receiving an order the scout first makes sure that he understands his mission. He then studies the terrain he must traverse, by observation or by means of a map noting the probable dangerous areas, enemy positions, roads, turns, and other critical points, and plans his procedure. He selects his routes and tentatively locates his observation points. He checks his equipment to see that he has a compass, watch, field glasses, wire cutters, notebook and pencils, if these are required by the nature of his mission. He carefully inspects his horse for fitness for the duty contemplated.

375. Movement by day.—*a.* In order to see and not be seen, the scout should make use of cover. In exposed areas he moves rapidly from cover to cover and remains motionless when not changing position. Progress is made along hedges, hollows, woods, and ravines which run parallel or nearly so to the direction of advance. When marching on roads the scout should keep to the sides and avoid the center to escape distant observation. Halts should not be made in the open, in fields, or on roads. In enemy country the scout seeks concealment from

high places and likely points for enemy observation. Rain, fog, and snow are favorable for the scout and often enable him to reach his objective without discovery. When low-flying planes appear, the scout should remain motionless if in the open and take advantage of woods, trees, bushes, ditches, and other cover from overhead observation when such are available. Although he may have selected a suitable route in advance, it may be necessary for the scout to make wide detours around open spaces or to avoid enemy patrols.

b. The mounted scout cannot move without noise and is more easily discovered by enemy observation than the dismounted scout. He can, however, march long distances by day or night on roads or across country at a good rate of speed. The elevation of the rider above the ground increases his radius of observation and the speed of the horse may compensate for the difficulty of concealment. A mounted man in the open makes an excellent target when moving slowly and when fired upon he should gallop to the nearest cover, preferably forward and to a flank. A single mounted man can often escape observation by remaining motionless against a neutral background, especially so if he is above the normal line of sight and makes no noise. A horse is easily concealed in bushes or under growth and in folds or depressions of the ground. By slowly riding up a ridge or hill to a point where he can just see over the crest, the mounted scout saves time spent in dismounting and securing his horse and saves himself from capture if a mounted enemy is close.

376. Movement by night.—At night the mounted scout moves slowly and keeps on soft footing to avoid noise. He frequently halts to listen for enemy movements. At night and early in the morning, slight sounds can be heard for long distances. By listening and moving quietly off roads and trails to a flank for a short distance, the scout can avoid approaching enemy patrols. When crossing short wooden bridges the mounted scout holds his mount to a very slow walk to avoid noise. If it is necessary to cross a long wooden floored bridge, the scout should muffle his horse's feet with pieces of sacking or such other material as can be secured or improvised. Across country the scout should be constantly alert to avoid running into wire fences and soft boggy ground. When his horse halts

in the darkness, the scout should not urge him forward but should dismount and lead slowly forward to discover the obstacle.

377. To reconnoiter.—The usual mission of scouts is to determine whether or not an area or locality is occupied by the enemy together with such additional information as can be obtained by observation. Observation alone will seldom disclose the presence of the enemy and will furnish only positive information. The scout therefore boldly seeks negative information of the enemy by fire. After careful observation has failed to disclose the presence of the enemy, the scout leaves his observation point and boldly rides or walks in plain view to within 500 or 600 yards of the area or locality which he is reconnoitering. Suddenly, as though he had observed a target, he opens fire with his rifle on the suspected area. After firing one or more shots he turns and gallops or runs to the nearest cover. This procedure will almost invariably draw enemy fire if the locality is occupied.

378. Reconnaissance scouts.—*a.* Reconnaissance scouts are sent out primarily for the purpose of obtaining information and may be mounted, dismounted, or initially moved by motor or air transportation. They may be sent out individually, in pairs, or in groups. Reconnaissance scouts are not expected to capture prisoners or engage in combat except in self-preservation. All that can be reasonably expected from the scout is positive information to the effect that a specified area or town is or is not occupied by the enemy.

b. Orders to reconnaissance scouts prescribe definite missions and are given orally. The scout notes in writing only such items as will give no essential information to the enemy if he is captured. Orders to scouts are similar in essential details to the orders given patrol leaders as prescribed in section II.

379. Mounted ground scouts.—Mounted ground scouts reconnoiter for and indicate routes free from enemy observation and fire which have good footing and which avoid unfavorable ground. They should be equipped with wire cutters and cut wire fences encountered en route. Mounted ground scouts move by bounds from one obstacle to the next as directed by the commander of the unit for which they are operating. Dis-

tances by which they precede their units vary with the limits of visibility from 500 yards in the open to 50 yards or less in woods.

380. Action on night march.—The column should be preceded by competent scouts who employ their knowledge of distance, direction, maps, and landmarks to guide their units correctly. If practicable, scouts should go over the route by day, making notes as to the landmarks, direction, and distance. At critical points, men should be left to point out to the column the proper road. If it is not possible for scouts to go out on the route by day, these notes may be made from the map. Scouts provided with a compass and a copy of the notes march at the head of the column to assist the officer conducting the march.

381. Action on night attack.—*a.* The leading unit of each column acts as a covering detachment. It is usually preceded by a patrol of scouts reconnoitering at each halt for the next advance. Halts should be of the shortest possible duration for rapidity is an essential element of the success of a night attack. As soon as a hostile post is discovered it is rushed.

b. The platoon leader successively indicates to the leader of this patrol the point, ordinarily 50 to 75 yards away, which he wants reconnoitered for the next bound. The scouts move forward aggressively, keeping in the shadows and working to the flank of the point to be reconnoitered. If it is unoccupied, the scout leader by a prearranged sound signal notifies the platoon leader who then brings up the platoon and indicates the next point to be reconnoitered.

SECTION II

INSTRUCTION TO MOUNTED PATROLS

382. Scope.—This section contains the principles to be considered and the actions to be taken by leaders in dispatching mounted patrols. The methods of conducting patrols are contained in section III.

383. Definition of patrol.—a patrol is a detachment of from two men to a platoon employed in reconnaissance or security missions beyond the immediate control of the leader by whom

It is sent out. According to their missions, patrols are classified as reconnaissance or security patrols.

a. Reconnaissance patrols.—Reconnaissance patrols are sent out to obtain information and get it back to the proper commander. The information may be of the enemy, terrain features, means of communication, or other information desired. Reconnaissance patrols regulate their movements on the enemy and avoid combat except for self-protection or when the mission requires it.

b. Security patrols.—Security patrols are sent out from security detachments or the main body, or both, to give warning of the enemy and to drive off hostile patrols. They regulate their movements on the body from which sent out and frequently engage in combat.

384. Detailing patrols.—Prior to sending out patrols, the leader makes an estimate of the situation, considering the following factors:

- a.* The information to be obtained or security to be provided.
- b.* The number and size of the patrols necessary.
- c.* The route and locality for each patrol.
- d.* Hour of starting.
- e.* Time and place of rejoining.
- f.* Equipment, rations, and forage.
- g.* When and where information will be sent.

385. Missions.—Patrols may be sent out on the initiative of the leader of the unit from which furnished or on orders from higher authority. In either case patrols should be given specific missions. In reconnaissance, missions should be expressed in specific questions stating information desired. In security, missions should prescribe definitely the sector of responsibility and the methods by which the security is to be provided.

386. Number and size of patrols.—The number and size of patrols should be the minimum required by the situation. Strength of patrols will depend on the resistance that they may have to overcome and the number of messages to be sent. As far as practicable the integrity of units should be preserved. Officers should lead patrols on important missions.

387. Routes, areas, or localities.—Reconnaissance patrols should be assigned definite routes or areas; security patrols

should be assigned definite routes or localities. If not prescribed by higher authority, these are selected from a map study and other information available. When it is desired to regulate the movement of patrols, lines or positions to be reached by stated times may be prescribed.

388. Hour of starting.—The hour of starting depends upon the time by which the information must be received or the security furnished. For a reconnaissance patrol, the time required for the patrol to obtain the information and the messenger to carry it to the commander must be computed in order to determine the hour of departure of the patrol. For a security patrol, it is only necessary to compute the time required for the patrol to reach its position.

389. When and where messages will be sent.—The points to which to send messages and the hours messages should reach those points must be given the patrols. Leaders of both reconnaissance and security patrols should know the location of the command or its route and the location and length of its major halts.

390. Time and place to rejoin.—The time and place patrols are to rejoin depend on their missions and the contemplated movement of the main body.

391. Equipment, rations, and forage.—*a.* Patrol leaders should have wire cutters, watch, compass, message blanks, pencil, and flashlight. If conditions warrant, they should also be furnished maps and field glasses.

b. Troopers should normally carry lunches, a feed of grain, and one reserve ration. If patrols are to stay out longer than 24 hours, arrangements should be made for delivery or local procurement of rations and forage.

392. Warning orders.—*a.* Whenever time permits, warning orders should be issued covering the following:

- (1) The strength, composition, and leaders of patrols.
- (2) The time and place of starting.
- (3) Instructions on equipment, rations, and forage.
- (4) Instructions regarding maps or terrain to study.

b. The organization commanders furnishing the patrols should inspect them prior to starting to determine their fitness for their duty.

393. Orders to patrols.—*a.* The following points should be covered:

(1) Information of the enemy which may affect the patrols and such information of our own troops as may be necessary to insure teamwork between the patrols and the main body.

(2) General purpose of reconnaissance or security.

(3) Specific instructions on the following:

(*a*) Hour of starting.

(*b*) The route or locality for each patrol.

(*c*) Specific questions for reconnaissance patrols; specific missions for security patrols.

(*d*) Under what conditions patrols should engage in combat.

(*e*) The time and place at which information is desired or reports will be made.

(4) Instructions on rations and forage.

(5) When and where to return.

b. The patrol leader may be given a written memorandum covering the items under *a* (3) above. No other part of the order will be furnished in writing. Orders to a patrol are usually given to the entire patrol unless led by an officer.

SECTION III

CONDUCT OF MOUNTED PATROLS

394. Preparation.—Having received his order, the patrol leader studies it and plans the operations of his patrol. He notifies the men concerned to make preparation for patrol duty and specifies the time and place of assembly.

395. Assembly of patrols.—When the members of the patrol report for duty, the patrol leader verifies the details and inspects men, horses, and equipment to insure that preparations as ordered have been carried out. He organizes the patrol so that each man understands his part. He checks the ammunition and equipment and sees that no papers, letters, or maps are carried that might benefit the enemy. The patrol leader then reports his patrol to the officer sending it out who inspects it.

396. Patrol leader's orders.—*a.* The patrol leader's order is then issued to the patrol and should follow the regular five

paragraph field order form, including such of the following items as pertain:

(1) Essential information relative to the enemy and friendly troops.

(2) The mission of the patrol and plan of the patrol leader for accomplishing the mission, including the objective, the route, and the initial formation of the patrol.

(3) Designation of a second-in-command, men for nearby reconnaissance, and special instructions to guides and attached scouts (if present).

(4) Designation of first assembly point and orders regarding general conduct of patrol including combat.

(5) Instructions as to rations and forage (if necessary).

(6) Explanation of signals to be used.

(7) Where patrol leader will march.

b. The patrol leader satisfies himself that all members of the patrol understand the order.

397. Passage of outpost line.—The patrol leader upon reaching the outpost line should inform the nearest outguard commander what route he plans to take and when he expects to return. He should ask the outguard commander for any information concerning the enemy and the location of friendly patrols. The patrol, if not already in formation at this point, assumes a suitable formation and moves out on its mission.

398. Formations.—All patrol formations should facilitate control by the leader and provide for a point and flank protection. The patrol leader and one man usually act as point. The second-in-command should be at the head of the main body of the patrol where he can exercise control and be ready to conduct the patrol on signals or orders from the patrol leader. Some members should be designated to watch to the left and others to the right. The last man or last two men watch to the rear.

a. *In open country.*—Patrols should adopt increased distances and open formations and when halted should seek concealment such as may be found in folds of the ground, ditches, or behind bushes.

b. *In close country.*—In close country, distances and intervals should be decreased to the point where contact and observation can be maintained. In mountains, woods, swamps, or cane-

brakes, a patrol may be forced to use a trail. The formation should then be column of troopers with a point and connecting file ahead. Going through a ravine the patrol should be staggered, should keep close to the sides and, when near the enemy, advance one man at a time. Passing through a defile, men should be sent to the high ground on each flank to observe and the remainder of the patrol sent through at increased distances as rapidly as possible.

c. Night formations.—When it is necessary for a patrol to move by night, the formations used should be similar to those used by day in close country. Distances and intervals should be such that control by voice or audible signal is possible. At frequent intervals, checks should be made to make sure that no members of the patrol have become separated from it.

399. Movements by day.—A patrol and the parts thereof should move by bounds from one position of observation or concealment to the next. When halted, all men should remain motionless and the men designated to protect the front, flanks, and rear when marching should continue alert observation to prevent surprise.

400. Movements by night.—*a.* The patrol keeps direction, moves as quietly as possible, and each member thereof observes the principles prescribed for the action of individual scouts at night. Instead of moving by bounds between observation points as by day, patrols moving at night should halt frequently to listen. At night, hand signals cannot be seen and talking or whispering betrays the patrol to the enemy. Control signals should therefore be prearranged, such as a low whistle or one similar to common night sounds. By the control signal the members of the patrol can be stopped, started, or checked up to see if any are missing. If the point or the flankers are attacked by the enemy, a phrase or word, such as "Front," or "Right," or "Rear," may indicate the location of the danger. During hand-to-hand struggles a prearranged word, number, or phrase used as a recognition signal may serve to distinguish friend from enemy.

b. A mounted patrol cannot move at night without noise that may be heard from distances varying according to weather conditions. Control is maintained by the leader's example and by oral commands passed from man to man in a low tone.

Flashlights should never be used except in emergency and smoking should be prohibited. When halted or on the march, members of a mounted patrol should pay close attention to the actions of their mounts. A horse will often sense the presence of a mounted or dismounted man before his rider does so, and by raised head and alert ears will indicate the direction of enemy approach.

401. Reconnaissance by day.—Members of a patrol approach observation points, search ground, and reconnoiter areas and localities as prescribed for the individual scout.

a. Crossroads.—To reconnoiter a crossroads, a patrol should halt near it and men should be sent to the flanks to strike the side road on each side of the crossroads and some distance from it. They reconnoiter away from the crossroads for a short distance. The remainder of the patrol then moves up to the crossroads where it is joined by the flankers.

b. House or enclosure.—Before approaching a house or enclosure, the patrol should watch for signs of the enemy for a time from concealed positions. One man then should go forward cautiously by the best covered means of approach. He should never go directly up to the door of the house, but keep close to the wall as he approaches it with his pistol ready for instant use. The other members of the patrol cover his advance from concealed positions, ready to open fire to protect him if necessary.

c. Identification.—If identifications are desired, smaller patrols or patrols of equal size are boldly attacked by surprise for this purpose.

d. Sky line.—When it is necessary for a patrol to approach a sky line, one man should go ahead. He should take off his hat or helmet and crawl to a point on the crest where the sky line is broken or ride up to where he can just look over the crest. The other members of the patrol should cover his advance from concealed positions. When a patrol moves parallel to a ridge, the flanker nearest it should move along the side of the ridge and from time to time go to the crest and look over. He must be careful to approach the crest where it is broken.

e. Streams.—The following should be the steps taken by a patrol in crossing a stream: Look for a bridge or a ford. Watch carefully for signs of the enemy on the other side. One man

crosses, swimming if necessary, while the others remain in concealed positions ready to protect him by fire; he reconnoiters and signals *Safe*. The others cross one at a time, each taking up positions on arrival. Formation is resumed when all are over.

f. Villages.—When passing through a village, each patrol should follow one street in staggered formation, half of the patrol on each side of the street in single file. Each man should watch the buildings and windows on the opposite side of the street. Men should not go down side streets or be sent there. The leading man should observe carefully along all cross streets from their junction. If the enemy is in the village, the advance should be made one man at a time, with the rest of the patrol covering his advance.

g. Woods.—To determine if woods are occupied, a few men should precede the patrol at wide intervals covering the remainder of the patrol which follows in column of troopers.

402. Reconnaissance by night.—Methods of reconnaissance by night are similar to those employed by day except that observation is limited and information should be obtained by listening or actual passage through localities and areas about which information is desired. The greatest care should be taken to avoid surprise and capture by the enemy. The hours of darkness may often be utilized by patrols to advance unobserved to the localities which they intend to reconnoiter by day.

403. Encounter with inhabitants.—By day or night, strangers or civilians encountered should not be allowed to pass through patrols and precede them toward the enemy.

404. Action when surprised.—When scattered by the enemy, the patrol reassembles at some point previously selected. If cut off, it returns by detour or fights its way through. As a last resort it scatters to avoid pursuit so that at least one man may return with the information.

405. Messages.—Information secured must be reported in time to be acted upon. Therefore, when the patrol obtains definite answers to any of the questions contained in the patrol order, the patrol leader should decide whether an immediate message is necessary or if the time allowed will permit the patrol to attain further information. If he decides to send an

immediate message, he may send one man if the distance is short and no enemy is likely to be encountered; otherwise, he should send two men, each by a different route. If two messengers are sent, each should be given a copy of the message. Messengers should be required to memorize the contents of the message to cover the possibility of its loss. They should destroy the messages in case there is immediate danger of capture by the enemy. In all cases, messengers should be given definite instructions as to where and to whom the message should be delivered and the time it should reach the specified destination. The patrol leader should also order the messengers to rejoin the patrol or remain with the main body of the command according to the situation and the mission of the patrol.

406. Bivouacs.—Unless so ordered, a patrol should not stop for a prolonged rest before returning. If necessary to remain out over night or to make a prolonged halt, the patrol should avoid villages, farms, or enclosures in selecting a bivouac. The position chosen should provide concealment from air and ground observation. It should offer opportunities for observation, defense, and departure. In daytime it should be near high ground offering distant all-around observation. At night it should be on low ground so as to bring approaching persons into view against the sky. By night or day the front, flanks, and rear should be protected by observation. Normally the horses should be left saddled and arms kept within reach.

CHAPTER 5

COMBAT TRAINING OF SMALL UNITS

SECTION I

GENERAL PROVISIONS

407. Scope.—This section contains tactical principles applicable to troop leading of all units up to and including the troop. Principles applicable to troop leading of each type of squad, and of the section, platoon, and troop are set forth in separate sections of chapter 5. Principles governing the employment of units larger than a troop are set forth in Cavalry Field Manual, volume III.

408. Security.—*a.* Detachment leaders in all combat operations protect their units from surprise by keeping small organized groups called security detachments between their commands and the enemy. These security detachments are called advance guards, flank guards, rear guards, covering detachments, scouts, combat patrols, or outposts, according to their missions.

b. Security from hostile aircraft is provided when marching or halted by—

- (1) Timely information.
- (2) Adequate dispersion.
- (3) Taking advantage of overhead cover.
- (4) Firing on hostile planes.

409. Movement.—In the presence of the enemy, cavalry habitually moves by bounds. Individuals and detachments move rapidly from one position of observation and concealment to the next. Each bound is followed by a check to observe to the front, to keep touch to the rear, and to plan the next bound. The length of the bound varies with the size of the unit and character of terrain. Small units usually make shorter bounds than larger units. In flat, open country, bounds are longer than in a rolling, close country.

410. Direction and location.—Leaders maintain their direction by marching on successive prominent landmarks, by the compass, or by the use of a map. They maintain their location by landmarks, by orienting themselves on a map, and by estimation of time and space from the starting point.

411. Conservation of animals.—Cavalry operations frequently require rapid movements by small detachments on reconnaissance, security, and combat missions. As the mobility of cavalry depends on the condition of its horses, the leaders of detachments should take advantage of every opportunity to conserve the strength of their horses. However, when the mission requires it, leaders should not hesitate to demand the maximum exertion of horses and men.

412. Use of terrain.—Cavalrymen must avoid serious obstacles to movement and take full advantage of terrain favorable to observation, concealment from view, avoidance of or protection from hostile fire. This applies especially to the selection of and approach to firing positions.

413. Led horses.—The leader, in dismounted action, make provision for the disposition and safety of led horses.

a. When led horses are held mobile under conditions where cover is available, squads are dismounted and led horses quickly placed under cover by the horseholders. In case no cover is available, sets of fours are widely separated to avoid casualties from enemy fire.

b. When led horses are held immobile under conditions where cover is available, squads dismount under cover and horses are secured in one group or linked in couples depending upon the extent of cover. In case no cover is available, horses should be linked in couples, widely and irregularly dispersed so as to present a difficult target to low-flying aircraft.

414. Command.—a. Command is exercised through the leaders of the successive units who control the movements and dispositions of their units by means of drill commands or signals as long as tactical conditions will permit, then by the assignment of tactical missions.

b. Tactical missions are assigned to leaders of subordinate units to effect the accomplishment of movements or tasks which cannot be accomplished by drill commands. The leader of any unit who has been assigned a tactical mission employs drill commands in its execution as far as possible and assigns such tactical missions to his subordinate units as the situation demands. As units are committed to combat, each successive leader assigns tactical missions to the leaders of subordinate units down to include the squad.

415. Personal reconnaissance.—Prior to combat, the leader of each unit should make a personal reconnaissance to verify and complete so far as time will permit his information regarding the enemy and the terrain. The reconnaissance may be limited to a hasty glance at the enemy and the terrain, but if time permits it should be more thorough. In some instances it may be necessary to supplement it by further work of scouts and patrols. The reconnaissance should be made under protection of a security detachment, such as scouts or a covering detachment, and whenever possible, the leader should be accompanied by the leaders of his next subordinate elements. It may be made mounted or dismounted, or a combination of the two, but full advantage should be taken of available cover.

416. Estimate of the situation.—Before a leader can make a decision, he must clearly understand his mission and have information about the enemy, supporting troops, and the terrain. This information is obtained from higher authority, from patrols and scouts, and by personal reconnaissance. He makes an estimate of the situation, however brief, covering the following points in order:

a. Mission.—He considers what he has been directed to do—that is, what he must accomplish.

b. Enemy.—He considers how the enemy may interfere with the performance of his mission.

c. Own troops.—He considers his strength as compared to that of the enemy and what assistance he may expect from friendly troops.

d. Terrain.—He considers how the terrain may assist or hinder him in the performance of his mission.

e. Plans.—He considers plans by which he can perform his mission.

f. Decision.—From the foregoing he decides what he will do; and when, where, and how he will do it.

417. Orders.—*a.* After the decision is made, individuals and units concerned must be given definite orders to insure cooperation in carrying out the plan.

b. To make certain that nothing is left out of an order to a unit, the following form should be used:

(1) Information about the enemy and our own troops.

(2) Decision and general plan.

(3) Detailed orders to each subordinate unit.

(4) Instructions, if necessary, covering supply and equipment.

(5) Location of commander or where to send messages.

c. Only the essentials of the form for an order are used. For small units, frequently only paragraph three is needed. In hasty action when time is a vital element, the order may be reduced to a minimum, as, "Pistol attack, follow me," or "Jones, take three men to that hill (pointing) and protect our flank."

418. Messages.—*a.* Whenever time permits, messages should be written. They should be brief and clear. Oral messages should contain but one thought or idea. Facts should be stated definitely and other information qualified, as, "A civilian reports," "Smith saw," etc.

b. Written messages should be carefully prepared. It is important to fill in the spaces provided on the message blank. The time the message is actually signed must be included. A sketch is often better and contains more information than a fully written message, as shown in figure 39.

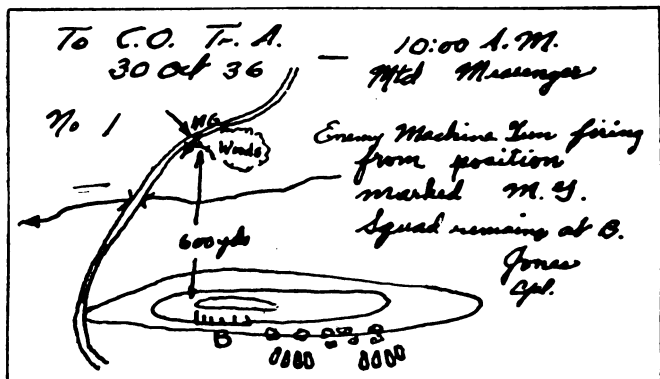


FIGURE 39.—Simple sketch; method.

Figure 39 is not drawn to scale. It requires no special training on the part of the sender. It contains no unnecessary information. It gives all information that is needed. It can be quickly made.

c. All messengers are required to repeat oral messages before starting, and should know—

- (1) Sender of message.
- (2) Where and to whom to deliver the message.
- (3) Whether to return or to remain with the person to whom the message is sent.
- (4) Where the unit will be if the messenger is to return.

SECTION II

RIFLE SQUAD

419. Squad combat organization.—The rifle squad normally consists of seven privates and a corporal who is the squad leader. No. 2 of each four is a scout and No. 3 is the horseholder. No. 1 of the second set of fours is the second in com-

mand of the squad. Each man in the squad is armed with rifle and pistol.

420. Tactical employment.—The rifle squad may be employed either mounted or dismounted, alone, or as part of a rifle platoon. The squad is considered as acting alone when it is beyond supporting distance of other troops. Alone, the squad performs reconnaissance and security missions which may involve combat. As part of a rifle platoon, the rifle squad attacks, or defends, or performs reconnaissance or security missions.

421. Mounted attack.—*a.* The squad operating alone usually should attack mounted or avoid combat. When the squad dismounts to fight on foot it becomes separated from its horses, loses 25 percent of its fire power, sacrifices its mobility, and may be pinned to the ground by enemy fire, risk defeat, and fail in its mission.

b. When the squad attacks mounted it employs the pistol, withholding fire until within 25 yards of the enemy. Normally the squad attacks in line of foragers but when the situation demands the attack may be executed in line, column of fours, twos, or troopers.

c. In the mounted attack, the squad leader controls his squad by personal example and necessary orders in the form of drill commands.

d. To attack, the squad leader commands: 1. **Pistol attack**, 2. **As foragers (line or column)**, 3. **FOLLOW ME**. The squad leader gallops in the desired direction, pointing to the objective. The squad, at the gallop, assumes the formation ordered and conforms to the movements and actions of the leader. Troopers raise pistol. The leader increases the pace to full speed or whatever speed seems desirable. Each trooper rides straight upon the enemy, selecting a victim in his immediate front. When attacking in line or line of foragers the squad does not open fire until abreast of the squad leader.

e. In a mounted attack, whenever there is time, the corporal designates a rally point for the squad beyond the enemy position. After the attack, the corporal reorganizes his squad, has pistols reloaded, and prepares his squad for further effort.

f. The principles stated above apply to the squad as part of a platoon making a mounted attack with such modifications

as are necessary to carry out orders received and to insure teamwork. When the squad attacks as part of a platoon, the squad leader remains in the rank and the squad attacks on command of the platoon leader.

422. Dismounted attack.—a. By squad operating alone.—

(1) The squad may attack beyond the immediate control of the platoon leader. The horses having been left under cover, the squad leader conducts his squad forward under cover of the scouts toward a position from which to assault. Distances or intervals between men in the open should be from 5 to 10 yards, but in woods or at night they may be much less. He uses covered routes as far as possible. Should hostile fire prevent further progress by this means, the squad closes on the scouts and continues forward by infiltration, advance by rushes, or flanking action. The method used will depend on the terrain and the cover available. If a light machine gun is attached, it should take the enemy under fire and support the attack of the squad.

(2) When the squad has been conducted to a position within about 50 yards of the objective and has been deployed as skirmishers the squad leader commands: **CHARGE**. At this command all men rush forward on the enemy position using their pistols in close combat. On securing the objective, the squad leader reorganizes his squad for the occupation of the position or for further combat. He may redistribute ammunition.

b. As part of a platoon.—(1) When operating as part of a platoon attacking dismounted, routes or directions of advance and objectives are assigned by the platoon leader who also prescribes the disposition of the led horses. Such an attack usually consists of four phases: approach, building up the firing line, fire fight, and assault.

(2) In the approach, the scouts usually precede their squads under the direction of the platoon leader. The squad leader conducts his squad in a suitable formation, such as squad column or line of half squad columns, by the route or in the direction indicated, regulating on the platoon leader or the base squad. In the approach, the leader is in front of his squad regardless of the formation of the squad. He varies the formation of the squad at will with view to taking full advantage of

the cover available. If a light machine gun is attached, the gun crew usually follows immediately behind the riflemen. If the platoon is halted the squad leader places his squad under the nearest available cover.

(3) When the scouts are stopped by hostile fire, the phase of building up the firing line begins. The squad leader, taking advantage of covered routes as far as possible, joins the scout or scouts from whom he learns the location of the enemy and the approximate range. He then selects positions for his squad to occupy in a skirmish line and, withdrawing a few yards to a position under cover, awaits the arrival of his squad. The second-in-command sends the other men forward one or two at a time, or as indicated by the squad leader, to occupy the positions indicated. If a light machine gun is attached, the squad leader selects its firing position and determines when it shall come forward. The second-in-command comes forward last.

(4) Having built up the firing line the fire fight commences. During this phase the squad leader is in rear of his squad where he can see the target and control the fire of his squad. He moves from man to man as may be necessary to make his orders understood and fires himself only in emergency. He observes the effect of the fire of his squad and looks ahead for a new fire position and how to reach it. He assists by fire the advance of the unit on his flank and advances his squad in turn assisted by the fire of adjacent units. A light machine gun, if attached, should be employed against targets to a flank or in front of adjacent units, the riflemen firing on targets in their front.

(5) The assault phase is reached when, by alternate fire and movement, the squad has reached a location from which to rush the enemy position. As a part of the platoon the squad assaults in the same manner as when acting alone. The squad leader checks ammunition at every opportunity, sees that it is removed from casualties, and redistributes it as may be necessary.

423. Defense.—*a. By squad operating alone.*—The squad acting alone engages in defensive combat in delaying actions and in the performance of certain security missions. In such cases the squad leader designates the men to fire, the target, the

firing position, and the location of the led horses. He determines the next movements in accordance with his mission.

b. As part of a platoon.—(1) Operating as part of a platoon when the squad is unable to advance or when the platoon is to occupy a defensive position, the men are placed in positions from which they can fire on the enemy or cover the ground to the front. The men take advantage of all cover, such as a sunken road, ditch, gully, shell holes, or stone wall. If directed to entrench, they scoop out individual holes with any means available enough to afford protection from rifle fire and shell fragments. If the squad is on a flank of the platoon, the light machine gun, if attached, is placed where it can get a good field of fire.

(2) When there are trenches, the squad is given a definite part to defend. The leader is told where to place the elements of the squad in case of an attack by the enemy.

(3) Men in advanced positions are always under arms. Rifles are loaded and locked with safety locks turned to "Safe."

c. Meeting an attack.—(1) An attack can be met promptly only when the sentries and observers give immediate warning of any signs of unusual movements of the enemy indicating an attack. At the first note of alarm, men move rapidly to their posts.

(2) If an attack is preceded by a bombardment, troopers remain under cover during the bombardment and assume their firing positions the instant the bombardment ceases.

(3) Troopers remain at their posts until definite orders stating the name of the person who gave the order and where the squad is to go, have been received.

424. Patrol.—A squad may be employed as a patrol on reconnaissance or security missions. It should be given specific instructions as provided in BFM, volume IX. These missions are performed in accordance with the principles contained in section III, chapter 4.

425. Point of advance guard.—*a.* A squad employed as the leading element of an advance guard is known as the point. Its duty is to follow the route of march and to give warning of the presence of the enemy to the troops in the rear, reconnoitering positions within about 300 yards from the route of

march which may afford observation or concealment to the enemy.

b. The leader conducts his squad in a patrol formation along the route designated, moving by bounds and regulating on the unit in the rear. The point notifies the next element in rear by signals or otherwise of any hostile troops observed and continues forward. Unless instructed otherwise the point operates aggressively, attacking mounted or firing on any hostile patrols or troops within its reach. When forced to halt it occupies the nearest suitable position on or near the axis of movement from which to observe and fire on the enemy.

426. Point of rear guard.—*a.* A squad employed as the rear element of a rear guard is known as the rear point. Its duty is to give warning of any enemy approaching from the rear and prevent delaying the column.

b. The leader conducts his squad in a patrol formation and moves by bounds, regulating on the unit ahead. The rear point reports by signal any enemy approaching and stops to fight only when forced to do so. If another element of the rear guard occupies a delaying position, the rear point withdraws to a flank so as not to mask the fire of the former.

427. Flank patrol or flank guard.—*a.* A squad sent to reconnoiter a specific locality on the flank of the column or directed to march on a route paralleling the column is known as a flank patrol or flank guard. Its duty is to warn and protect the command should the enemy appear.

b. Flank patrols march in a suitable patrol formation and move by bounds from one observation point to another. Positions near the route of march affording observation or concealment to the enemy are reconnoitered. Information is transmitted by signal or messenger.

428. March outposts.—Whenever a command halts, any squad on security mission as point or flank patrol becomes an outguard during the halt or until relieved. It proceeds to the nearest suitable point of observation and posts sentinels. When the march is resumed it continues on its original missions.

429. Outguards.—A squad posted in observation in a fixed position constitutes a sentry squad and a half squad similarly posted constitutes a cossack post. Both are known as outguards and their duties are to observe in the direction of pos-

sible enemy approach and give prompt warning of any enemy in the vicinity. A sentry squad posts two sentinels and a cosack post posts one. Sentinels remain quiet in positions affording observation. The remainder of the men and the horses remain in concealment nearby and within talking distance. Sentinels are relieved every 2 hours or oftener.

430. Connecting group.—A squad employed to maintain contact between larger elements of a command is called a connecting group. If the elements are in column the connecting group usually follows the leading unit and drops off one or two men as connecting files at each position where the unit in rear would otherwise be lost to view. As the unit in rear moves forward the connecting files move forward also, rejoining the squad when the leader of the unit in rear can see the connecting group or the tail of the unit in front. If the elements are in line, the connecting group moves in such a manner that it knows the location of each of the units with which it is keeping contact. If contact is lost the squad leader immediately reports the fact to the commander of the unit with which he is still in contact. Pending further instructions the squad acts as a flank patrol.

431. Covering detachment.—A squad may be employed as a covering detachment for an element in an approach march. The function of a covering detachment is to prevent the unit it is covering from being surprised by the enemy or becoming delayed by terrain features. The covering detachment is deployed on a front at least equal to that of the unit it is covering. It moves as directed by the commander sending it out.

SECTION III

RIFLE PLATOON

432. Organization.—The rifle platoon consists normally of three rifle squads and a small platoon headquarters.

433. Tactical employment.—The rifle platoon may be employed either mounted or dismounted, separately or as a part of the troop. The platoon is considered as acting separately when it is beyond supporting distance of other troops. As part of the troop, the rifle platoon attacks, defends, or per-

forms security missions. Alone, the platoons perform reconnaissance or security missions which frequently involve combat.

434. Mounted attack.—*a. By platoon operating alone.*—(1) The platoon leader may launch an attack with a part of the platoon, holding out a support; or the entire platoon may attack as a unit. The method employed will depend on the mobility of the enemy, the element of surprise, and the terrain. Normally a support should be held out when attacking a force of equal mobility, as mounted troops. In attacking a force of lesser mobility, as dismounted troops, it may be desirable to attack with the entire platoon as a unit.

(2) When a support is held out the platoon leader may attack with two squads, holding one in support, or may commit his squads successively.

(a) If the platoon leader desires two squads to attack together, he commands: 1. *1st and 2d squads, as foragers (line, column)*, 2. *PISTOL ATTACK* (pointing to objective), 3. *3d squad*, 4. *FOLLOW ME*. He may direct the platoon sergeant to lead this attack.

(b) If the platoon leader desires to attack successively by squad, he launches the squads in the attack by similar commands.

(c) Squads not launched in the attack follow the platoon leader who launches them in the attack at the appropriate time. If the platoon is on a road bounded by fences, the support may open a passageway during the attack of the first wave to permit an envelopment of the hostile force.

(d) After the attack, the platoon leader assembles the platoon and takes such further action as his mission indicates.

(3) To launch the entire platoon in a mounted attack, the leader commands: 1. *As foragers*, 2. *Pistol attack*, 3. *FOLLOW ME*. He leads the platoon rapidly in the direction of the enemy. As the platoon advances on the enemy, the platoon leader and those members of platoon headquarters accompanying him are absorbed in the rank. The platoon file-closer sergeant follows in rear and prevents straggling. When within about 60 yards, the platoon leader commands: *CHARGE* and all close on the enemy at full speed, withholding fire until within 25 yards. While the platoon normally attacks as foragers, it may attack in line. If in a defile, it may also attack in column.

(4) When a light machine-gun squad is attached to a platoon, it usually follows in rear of the platoon. If time permits and there is little danger of its being captured by the enemy, the platoon leader may direct it to support the attack by fire. Under some circumstances a rifle squad or half squad may be left with the light machine gun for local protection. When the men are dismounted the horses should be held mobile and placed under the nearest available cover.

b. As part of a troop.—(1) The direction or objective and time of attack are prescribed by the troop commander. The platoon normally attacks as foragers as described in *a* (3) above or as ordered by the troop commander.

(2) Unless directed otherwise, platoons in rear conform to the movements and actions of the leading platoon.

435. Dismounted attack.—*a. By platoon operating alone.*—The mission of a platoon may require it to attack beyond the immediate support of other troops.

(1) If present, horses should be held mobile and placed under the nearest available cover. The platoon leader sends scouts out to develop the enemy and cause him to disclose his position before the platoon comes under the enemy's fire. Scouts are sent out from 50 to 500 yards, depending on the terrain and the visibility. The platoon leader accompanied by the messengers follows the scouts. The platoon sergeant following the platoon leader conducts the platoon forward in a suitable approach formation, using covered routes as far as possible. If attached, the light machine-gun squad follows immediately in rear of the platoon.

(2) When the scouts have located the hostile position or are stopped by fire, the platoon leader makes a personal reconnaissance and assigns objectives to the squad leaders. He may attack with two squads, holding one in support, or he may attack with all three squads. In either case the attacking squads build up the firing line and attack as described for the squad. If light machine guns are present they may support the attack under the direction of the platoon leader or they may be attached to rifle squads. If a suitable firing position is available, the light machine guns should be employed initially as a unit under the control of the platoon leader. In close country or where no suitable firing position

exists from which to support the platoon as a whole, separate light machine guns may be attached to rifle squads.

(3) During the fire fight, the squads advance individually as far as possible as described for the rifle squad. When one squad is held up, other squads assist it by fire or by flanking action. If a squad has been held in support it may be used to outflank resistance and a squad that has been held up may be placed in support.

(4) The light machine-gun squad normally supports the attack by fire on that portion of the enemy position offering the greatest resistance in order to assist the advance of the rifle elements. When their fire is masked or they are displaced forward for any other reason, they may be attached to squads if a suitable firing position is not available from which to support the attack of the entire platoon. The messengers remain with the platoon leader as runners and the platoon sergeant assists the platoon leader by supervising the conduct of the squads.

(5) The assault is the final phase of the attack in which the attacking units, having obtained a controlling terrain feature or fire superiority, or both, close with the enemy. The distance covered in the assault varies with the visibility, terrain, and enemy resistance. Under favorable conditions it may be as great as 300 yards but usually it is much less.

(6) When the assault commences it should be supported by all available machine-gun fire and any part of the platoon still in support should be employed. Where the distance is more than 40 or 50 yards, or cannot be covered in a single rush, the troopers advance using marching fire.

(7) Upon securing the objective the platoon leader, assisted by the platoon sergeant, reorganizes the platoon for the occupation of the position or for further combat.

b. As part of a troop.—(1) When attacking dismounted as part of a troop, the objective and direction of advance and disposition of the horses are prescribed by the troop commander who may also coordinate the movements of the scouts. Normally the frontage of a platoon should not exceed 150 yards. Direction may be prescribed by terrain features or by compass bearings. The platoon attacks in the same manner as

when operating alone. It assists adjacent platoons by flanking action and light machine-gun fire on the enemy in their front.

(2) A platoon in support follows the assault echelon or moves by bounds from one location to another as directed by the troop commander. It normally provides for flank protection by sending scouts or a security patrol to an exposed flank.

436. Defense.—*a. By platoon operating alone.*—(1) The platoon acting alone should avoid defensive combat except in the performance of its missions. In delaying action, the platoon is deployed on a wide front with little or no depth. It may cover a frontage by fire up to a maximum of 600 yards. The position occupied should afford observation and a good field of fire to the front and flanks. It should provide concealment and have cover for led horses nearby. Depending upon the terrain, the platoon may occupy a single prominent position or the squads may be distributed across the front so that they can cover the intervals and also have a good field of fire to the front. Light machine guns should be employed where they can place fire on the enemy to the limit of their range.

(2) Led horses should be held mobile in charge of the file closer sergeant and should be as close to their squads as conditions permit.

(3) Unless instructed otherwise, in delaying actions the platoon leader withdraws his platoon before it becomes too closely engaged to permit a withdrawal.

b. As part of a troop.—(1) When defending as part of a troop, the position to be occupied, the frontage to be held, and the disposition of the horses will be prescribed by the troop commander. In delaying action, the platoon will usually employ the method described in *a* above. In a more protracted defense, the platoon will be assigned an area to organize, varying from 100 to 200 yards in width and from 50 to 100 yards in depth, depending on the mission and the terrain.

(2) Within this area light machine guns are located so as to fire well to the front of adjacent platoons. Caliber .50 machine guns are sited to cover the possible approaches of hostile mechanization. Rifle elements are distributed in small groups to protect the supporting weapons by fire to the front and to cover intervals not covered by light machine guns. A support is usually held out and located centrally or so as to protect and

expand the flanks. Ranges are determined to prominent terrain features to the front and flanks.

(3) As time permits, the position is improved by digging individual pits, clearing a field of fire, and constructing obstacles.

(4) A platoon in support or reserve organizes its locality similarly, automatic weapons being sited to fire between the front line combat groups. In addition, routes are reconnoitered for use in counterattack.

437. Advance guard.—*a.* A platoon may constitute the entire advance guard for a larger force or may be a leading element of an advance guard when it is called the advance party. The methods of operation are the same in both cases. It may have light machine guns, caliber .50 machine guns, and motorcycles attached.

b. The platoon leader sends out a point to precede the platoon from 300 to 500 yards and conducts limited flank reconnaissance in order to examine terrain not visible from the route of march. Mounted patrols are generally used for distances up to about one-half mile. Flank reconnaissance may be performed by having small patrols move parallel to the route of march or by sending patrols out from time to time to reconnoiter positions on the flanks from which the main body might be fired on. The former method is desirable when ridge lines or roads closely parallel the route of march. Generally, however, it is preferable to detach a patrol on approaching each dangerous position or good observation point on a flank, with instructions to proceed rapidly to the position to reconnoiter or observe, rejoining later.

c. Unless instructed otherwise, the platoon regulates on the next element in rear. The platoon leader conducts the platoon, less detachments, on the route of march, regulating his march so that the distance will not be less than that prescribed in his instructions. Normally, the platoon moves by bounds from one point of tactical advantage, such as a rise of ground or turn in the road, to another, in order to afford protection to the element in rear. To preclude the possibility of getting too far ahead, the platoon leader waits at each point until he knows the element in rear is moving forward. Where visibility makes movement by bounds impracticable, or where the

rate of march of the main body is so fast that further increase of rate is inadvisable, the platoon advances at a steady rate of march.

d. If the point is fired on or held up, the platoon leader makes a personal reconnaissance and, unless instructed otherwise, employs the platoon to drive off the enemy, delay his advance, or develop his dispositions.

e. If the presence of the enemy is discovered on a flank, the platoon leader reports the situation to the next element in rear and keeps his platoon near the route of march.

438. Covering detachment.—*a.* A platoon may be employed as a covering detachment for a larger unit making an approach march. For this purpose the platoon may be deployed in a line of half squads or as foragers with a view to prevent the larger unit from being surprised by enemy fire or delayed by terrain features. These groups act as scouts to cut fences and lead, or guide, elements in rear, in order to take advantage of cover available.

b. The platoon moves by bounds from one position to another as directed by the commander sending it out. At each position the platoon halts and observes to the front and flanks until the platoon leader is given instructions to proceed to the next.

439. Flank guard.—*a.* The platoon may be employed as a flank guard of a larger force to prevent hostile forces on a flank from interfering with the march of the main body. It may have both caliber .30 machine guns and caliber .50 machine guns attached. The flank guard may be assigned a route and a rate of march or it may be ordered to protect the march of the main body by occupying, in succession, certain selected positions for specified periods of time.

b. When marching, it provides for its own security by sending out a point and patrols on the threatened flank. When halted, it occupies a defensive position and establishes outguards covering possible routes of enemy approach.

440. Rear guard.—*a.* A platoon may constitute the entire rear guard of a larger force or the rear element of a rear guard. In the latter case it is called the rear party. The method of operation is similar in both cases. It may have both caliber .30 and caliber .50 machine guns attached.

b. The platoon commander puts out a rear point and such flank patrols as the situation demands, to give warning of enemy approach. Whenever possible, flank patrols should parallel the route of march of the platoon with sufficient interval to prevent the platoon being taken under rifle fire by a pursuing enemy. Unless instructed otherwise, the platoon regulates on the element ahead. If overtaken by the enemy, the platoon covers the withdrawal of the rear point and delays the hostile advance. Full use should be made of long range machine-gun fire and, unless directed otherwise, the platoon should withdraw before becoming too closely engaged.

c. In withdrawing, care must be taken not to mask the fire of other elements which may be occupying delaying positions in rear.

441. Outposts.—*a.* A platoon may constitute one of the supports of an outpost and may have both caliber .30 and caliber .50 machine guns attached. The location of the platoon, the sector of responsibility, the line of observation, and disposition of horses are generally prescribed in the order establishing the outpost.

b. The platoon leader conducts his platoon to the designated location and establishes outguards on the line of observation, covering possible routes of enemy approach in the sector. These outguards may consist of sentry squads or cossack posts, depending on the strength of the platoon and the number of outguards required. While observation is one of the primary considerations in the location of outguards during daylight, at night they are generally located on or close to routes of communication and approach.

c. That part of the platoon remaining at the support organizes its position for defense and posts sentinels. Caliber .30 machine guns may be attached to outguards or emplaced at the position of the support, depending on where they will be of the most use. Caliber .50 machine guns are posted for defense against mechanization.

d. In case of attack, the outguards, when driven in, fall back on the support and assist in the defense of the position. While the outguards may have their horses close at hand during daylight, usually they are not farther forward than the line of supports in the day or night.

SECTION IV

LIGHT MACHINE-GUN SQUAD

442. Organization.—The light machine-gun squad consists of seven privates and a corporal who is the squad leader. It is organized into two gun crews, each consisting of a gunner, assistant gunner, and horseholder. The horseholder leads the gun pack horse carrying the gun and tripod, spare parts chest, and 3 ammunition chests. In addition to the ammunition carried on the gun packs, an additional pack horse carries ammunition for the squad.

443. Employment.—The light machine-gun squad may operate as part of the light machine-gun platoon or may be attached to a rifle platoon. Normally the guns are employed in pairs, though separate guns may be attached to rifle squads.

444. Assignment of missions.—When operating as a squad, missions will be assigned by the leader of the rifle platoon to which attached or by the light machine-gun platoon commander when the platoon operates as a fire unit. When separate guns are attached to rifle squads, their missions are assigned by the leaders of the squads to which attached. Fire is conducted in accordance with the instructions of the leader of the unit to which the light machine gun or squad is attached.

445. Targets.—Targets designated for light machine guns will usually be beyond the range of effective collective rifle fire and up to the effective limit of observation of light machine-gun fire.

446. Occupation of initial firing positions.—Going into action, whether mounted or dismounted, the light machine-gun squad follows the rifle unit to which attached, using similar formations to take advantage of cover and to avoid enemy fire. When assigned a mission, the squad leader makes the necessary reconnaissance to select the gun positions and routes thereto and to estimate the range. Each gunner and assistant gunner, carrying tripod and gun respectively, and each carrying one ammunition chest, advance dismounted to cover in rear of the approximate gun position, at which point the gun is mounted on the tripod. Gun positions and targets having

been designated by the squad leader, each gun goes rapidly into position and carries out the assigned fire missions.

447. Change of positions.—Light machine guns will frequently have to occupy new firing positions. Whenever possible, change of position involving movement over a considerable distance should be made in pack. Frequently, however, when attached to units attacking dismounted the position of the guns must be changed by hand. In this case the gun and tripod may be carried as a two-man load or they may be separated, the gunner carrying the tripod and the assistant gunner carrying the gun. When cover is poor or for distances over 100 yards, it is preferable to dismount the gun from the tripod. In either case the gunner and assistant gunner each carry one ammunition chest.

448. Led horses.—*a.* When the squad is attached to a rifle platoon, the led horses join the led horses of that platoon.

b. When the squad forms part of the light machine-gun platoon, the platoon leader is responsible for the disposition of the led horses.

449. Ammunition.—The squad leader is responsible for the supply of ammunition to the guns from the ammunition carried in the squad. Under his direction, horseholders dismounted bring forward loaded belts in ammunition chests and return the empty belts, in chests, to the location of the led horses. Ammunition is transferred from the ammunition pack to the gun packs and the ammunition pack horse is used to replenish the supply of ammunition from the combat train.

450. Withdrawal from action.—In withdrawal from action, the squad leader directs the movement of the guns and tripods to cover in rear of the gun positions. The guns are dismounted from the tripods, each gunner and assistant gunner carrying his assigned load to the location of the led horses which are brought as far forward as conditions permit.

SECTION V

LIGHT MACHINE-GUN PLATOON

451. Organization.—The light machine-gun platoon normally is composed of three gun squads and a platoon headquarters. The platoon headquarters consists of a platoon leader (lieutenant), a platoon sergeant, and two messengers.

452. Employment.—The light machine-gun platoon may be employed as a unit under the direction of the troop commander or its squads may be attached to rifle platoons. In either case the light machine guns are employed for prompt and close support of the rifle elements. Exceptionally, the light machine-gun platoon may form a wave in a mounted attack or may be grouped with other light machine-gun platoons for special fire missions.

453. Assignment of missions.—When operating as a platoon, missions will be assigned by the troop commander or other commander under whom the platoon operates. Fire is conducted in accordance with the instructions of the leader of the unit to which the light machine-gun platoon is attached. In emergencies the platoon leader may place his guns in action without orders from the troop commander.

454. Selection of positions.—Within the latitude allowed the platoon leader should select positions which will permit the guns to fire for the maximum time at ranges from 1,200 to 400 yards. In supporting a mounted attack the line of fire should be as nearly as possible at right angles to the direction of the attack. In organizing a defensive position the platoon leader coordinates or assists in coordinating the fire of light machine guns with the view of obtaining the maximum benefit from the guns available.

455. Occupation of initial firing position.—Rifle units normally cover the entry into action of the light machine-gun platoon or squad. The platoon leader, accompanied by his squad leaders and both messengers, moves mounted to cover close in rear of possible firing positions. While the platoon leader, dismounted, assigns position areas and missions to his squad leaders, one messenger guides the platoon, under command of the platoon sergeant, as far forward, mounted, as cover will permit. After receiving their instructions, squad leaders place their guns in position as described for the light machine-gun squad in section IV. When the platoon is in position, one of the messengers is sent to report to troop headquarters as agent.

456. Led horses.—Led horses of the light machine-gun platoon should be held under cover as closely in rear of firing positions as the situation permits. The platoon sergeant com-

mands the led horses and is responsible for their safety. Led horses having been safely disposed, he reconnoiters for covered routes and protected positions for forward displacement. Within each squad a designated driver is in charge of the led horses.

457. Change of position.—*a.* Changes of position may be made by the entire platoon at one time or by squad. Usually the platoon leader, accompanied by a messenger and such other personnel as he indicates, proceeds to the new location to select gun positions.

b. The platoon leader may give instructions for movement of the guns prior to his departure or may send instructions back after reaching the new location. Whenever possible, changes of position over a considerable distance should be made in pack.

c. If the change is to be made mounted, the platoon sergeant may be directed to conduct the platoon to its new position. If the change is to be made dismounted, the squad leaders may be directed to conduct their squads to the new position. In either case the squads change position as described for the light machine-gun squad in section IV.

458. Ammunition.—*a.* When the light machine-gun platoon is employed as a unit, the platoon leader is responsible for the supply of ammunition to the guns. Ammunition carried in the squad is handled as described for the light machine-gun squad in section IV.

b. Whether the light machine-gun platoon is employed as a unit or by squad, the platoon leader arranges for supplying the ammunition pack horses of the squads from the combat train as the situation demands.

459. Withdrawal from action.—The light machine-gun platoon withdraws from action on the platoon leader's instructions by the same methods prescribed for the light machine-gun squad in section IV.

SECTION VI

RIFLE TROOP

460. Organization.—The rifle troop consists of three rifle platoons, a light machine-gun platoon, and a troop headquarters. The troop headquarters is divided into a forward echelon and a rear echelon. The forward echelon consists of the first sergeant,

stable sergeant, buglers, and messengers. The rear echelon consists of the mess sergeant, supply sergeant, troop clerk, cooks, horseshoers, saddler, wagoner, and ammunition packs, ration packs, kitchen packs, and a light wagon.

461. Employment.—The troop participates in mounted or dismounted combat alone or as part of a larger force. It provides for its own security when operating alone and may perform reconnaissance and security missions for larger forces.

462. Types of attack.—The troop may make a combined attack of mounted and dismounted elements or may attack wholly mounted or wholly dismounted.

a. Combined attack.—When operating alone, the troop commander seeks to employ the rifle platoons mounted, supported by the fire of the light machine-gun platoon. A rifle platoon (more or less) may be employed dismounted to augment the fire of the light machine-gun platoon or to attack dismounted or both.

b. Mounted attack.—The troop attacks mounted as the maneuvering element of a larger force making an attack or as part of a squadron making a mounted attack. When operating alone, the entire troop may attack mounted in emergency.

c. Dismounted attack.—(1) As part of a squadron or larger force, the troop attacks dismounted as part of a squadron making a dismounted attack or as the dismounted element of a larger force which is making a combined attack. When acting as a maneuvering force, it may attack dismounted if it becomes apparent that the attack cannot be made mounted.

(2) When operating alone, the troop attacks dismounted when conditions are not favorable to one of the other types of attack. Such conditions may be due to hostile dispositions, darkness, thick woods, or terrain where fast movement is not possible.

463. Types of defense.—The troop may occupy a defensive position as part of a squadron. The troop operating alone normally employs the defensive only in delaying actions or the defense of a locality.

464. Security measures.—*a. On the march.*—(1) When the troop is operating alone, the troop commander provides for its security by putting out an advance guard and rear guard and conducting such flank reconnaissance as may be necessary. The

advance guard or rear guard may vary from a squad to a platoon, depending on the situation, and is conducted as prescribed for the rifle squad and the rifle platoon. (See secs. II and III.)

(2) The troop commander gives the advance guard and rear guard such instructions as may be necessary, depending on the mission of the troop, and prescribes the method of advance. The distance at which the advance guard precedes or the rear guard follows the troop should be sufficient to preclude the troop receiving accurate fire from small arms.

b. When halted.—As far as possible the troop commander avoids halting the troop in defiles, villages, or other places where the terrain restricts his freedom of action. At short halts the advance guard, rear guard, and flank guards habitually constitute march outposts as described in section III. Should all these elements not be employed, small patrols may be posted to observe likely routes of hostile approach. If the halt is longer than a short routine halt, a regular outpost should be established.

465. Personal reconnaissance.—When the enemy is discovered, the troop commander immediately places the troop under cover or directs it to continue forward in an approach formation. Under protection of a covering detachment, he then moves to a position where he can learn the situation by personal reconnaissance. If the troop is to attack at once, this reconnaissance may be only a brief glance at the enemy and the intervening terrain. If the enemy is encountered in a position, it may be necessary to send out scouts or patrols with a view to gaining more information as to the size of the hostile force and the location of the flanks of the position. Whenever time permits, the troop commander should be accompanied by the first sergeant and those subordinates who may command fractions of the troop. This group remains mounted as long as their progress toward selected points for observation will be hastened thereby, provided this will not attract enemy observation and fire. The reconnoitering party should take advantage of any available cover or concealment and should avoid bunching. The troop commander should not go more than about 800 yards away from his troop in reconnoitering a dismounted enemy and much less if the enemy is mounted.

466. Combined attack of a rifle troop.—The troop is divided into a dismounted element which attacks by fire, or by fire and movement, a mounted maneuvering element, and usually a reserve. The combined attack may be executed against an enemy in position or a dismounted enemy not in position. A variation of it may be employed against a mounted enemy.

a. Against an enemy in position or a dismounted enemy.—Normally this attack has five successive steps:

The mounted approach.

Dispositions for the attack.

The attack.

The pursuit.

The reorganization.

(1) *The mounted approach.*—When contact is imminent, the troop passes from a march column to an approach formation. The troop commander directs the advance guard, normally a rifle squad of the leading platoon, to operate as a covering detachment and develop the enemy situation. When contact is gained, the covering detachment may be reinforced by the remainder of the leading platoon with a light machine-gun squad attached and directed to drive in the enemy security groups and attack the hostile position by fire. Normally the troop follows the covering detachment in an approach formation, usually column of platoons with the light machine-gun platoon in rear. Platoons take a formation suitable to the terrain with distances of from 50 to 150 yards between platoons. The troop commander rides in the interval between the covering detachment and the troop where he can control the movements of both. On taking up the approach formation, platoon leaders in rear join the troop commander.

(2) *Dispositions for the attack.*—(a) Based on information gained from the covering detachment and personal reconnaissance, the troop commander formulates a plan of attack. He decides on the strength and direction for the dismounted attack, the strength and direction for the mounted attack, and the route to its attack position. He also decides the method of coordinating these attacks, the strength and location of the reserve, the limit of pursuit and assembly position, the disposition of led horses, and any special security measures needed.

(b) The covering detachment and the light machine-gun platoon usually constitute the dismounted attack whose mission is to assist the mounted attack by breaking or materially reducing the hostile resistance. The dismounted elements of rifle platoons attack vigorously. The light machine-gun platoon may operate with the dismounted elements or be assigned a suitable location from which to support the attacks by fire. The direction of the dismounted attack should be approximately at an angle of 90° to the mounted attack. The troop commander fixes the time of attack which ordinarily is as soon as elements can get into position.

(c) One or two platoons constitute the mounted attack. The position from which this element attacks should be one which it can reach unobserved and from which it can launch a mounted attack in rear of the hostile flank. This attack should be launched as a surprise and should follow or be simultaneous with the dismounted attack. This element may be ordered to attack at a fixed time, or as soon as in position.

(d) The reserve may vary from a squad to a platoon, depending on the mobility of the enemy, and is normally held mobile near the troop commander.

(e) An unmistakable terrain feature or a specific distance beyond the enemy's position should be designated as the limit of pursuit. Normally, elements of a troop should not pursue more than a mile.

(f) Led horses should be held mobile under cover as near at hand as the situation will permit so as to be readily available.

(g) Having decided on a plan of attack, the troop commander issues oral orders to those present and sends messages to others. He then goes to a position from which to observe the attack.

(3) *The attack.*—Rifle elements attack as described in section III. Fire of the light machine-gun platoon is increased as the attack progresses and is lifted when masked by other attacking elements. The troop commander employs the reserve at the proper time to assure success.

(4) *The pursuit.*—The success of the attack is exploited by mounted pursuit, by the maneuvering force, and by prompt occupation of the position by the dismounted rifle elements and the light machine-gun platoon.

(5) *The reorganization.*—On the termination of the pursuit, the troop commander reorganizes the troop and makes preparations for continuing the mission, reporting the engagement at the earliest opportunity.

b. Against a mounted enemy.—The troop may make a combined attack against a mounted enemy. The attack is made in the same general manner as against a dismounted enemy with the following modifications:

(1) *The approach march.*—The covering detachment is not reinforced.

(2) *Dispositions for the attack.*—Dispositions are made to secure surprise by rapid maneuvering of the mass of the troop, supported by fire of the light machine-gun platoon. The dismounted element is only enough to protect the light machine guns. The reserve consists of at least a rifle platoon which remains mounted.

(3) *The attack.*— platoons attack as described in section III. All movement is rapid. The troop commander leads the reserve and employs it at the proper time to assure victory.

(4) *The pursuit.*—When their fire is masked, dismounted elements mount promptly and rejoin the troop commander.

467. Mounted attack.—*a. As maneuvering element.*—(1) The squadron commander prescribes the squadron plan of attack, the objective, locality from which to attack, and general route thereto, direction of the attack, time of the attack, limit of pursuit, and first assembly point. He may detach light machine-gun platoons to form part of the pivot of fire for the squadron.

(2) The troop commander initiates movement of the troop without delay and prescribes the formation. Normally, an approach formation will be ordered though a closed column might be directed if a covered route is available. The troop commander directs the functioning of the covering force, normally an element of the leading platoon.

(3) During the approach march the platoon leaders join the troop commander who explains the situation and mission of the troop. En route the troop commander considers the terrain and the possible methods of attack. The troop commander may direct the leader of the light machine-gun platoon to reconnoiter

for positions from which to support the mounted attack, preferably on the inner flank of the mounted attack.

(4) On reaching the locality from which the attack is to be launched, the troop commander issues his final attack orders assigning tactical missions to the platoons.

(5) The covering force continues initially as a security force in approaching the objective, and is absorbed in the troop as the assault is delivered.

b. Against an enemy in position.—(1) The formations adopted should be such that a poor target is offered to an enemy in position. Rapidity of movement favors the attack. If present, the light machine-gun platoon may support the attack by fire or follow the troop as a wave of the attack.

(2) The attack is made in column of platoons, at from 100 to 200 yards distance, or in column of platoons echeloned to protect the exposed flank. Formations of the platoons en route to the objective are controlled by the platoon leaders; initially they may be in line of squad or half squad columns. As the platoons near the objective, line of foragers at extended intervals is taken up.

(3) Leading platoons gallop through to attack the reserve. The rear platoon engages the enemy in close combat. The light machine-gun platoon follows the troop (after its fire is masked, if it supported the attack by fire) and is promptly used to secure the objective or to pursue by fire.

(4) If the attack is successful, the leading platoons immediately pursue to the prescribed limits.

(5) The troop commander accompanies the rear platoon, directs the occupation of the position, and reorganization and assembly of the troop.

c. Against a moving enemy.—More cohesion is needed than in the case of an attack against an enemy in position. Rapidity of movement is vital. Attack is delivered by rapidly assigning combat missions to the assault elements. The light machine-gun platoon is directed to promptly support the attack (until its fire is masked). The troop commander personally leads the support element and employs it in a manner that will best support the attack. Predetermined limits of pursuit and assembly areas cannot usually be prescribed. The troop commander reorganizes the troop in accordance with the situation.

d. By troop operating as part of a squadron.—(1) When attacking mounted as part of a squadron, the squadron commander conducts the approach march. He also assigns objectives and missions, announces the limit of pursuit or assembly point, prescribes the formation for the squadron, and may direct the employment of the light machine-gun platoon.

(2) The troop commander deploys his troop as directed by the squadron commander and leads it toward the objective. When within about 300 yards of the enemy he directs the leader of the leading platoon, "Attack." As this platoon increases its pace, the troop commander joins the next platoon in rear. This platoon is launched in a similar manner and the troop commander attacks with his last platoon.

e. By troop alone.—(1) When operating alone, if the enemy is unexpectedly encountered or when surprise is possible, the troop commander may launch one platoon at a time by turning to a platoon leader, commanding **Attack**, and pointing to the objective. As the platoon moves out, the troop commander joins the platoon leader of the next platoon in rear and leads the remainder of the troop in the desired direction, or launches succeeding platoons in a similar manner.

(2) The platoons attack as described in section III. The platoon leaders rally their platoons and rejoin the troop commander as soon as the situation permits.

468. Dismounted attack.—*a. By troop operating alone.*—The troop may attack as the dismounted element of a squadron in a combined attack; exceptionally, it may attack dismounted when alone. The dismounted attack has five consecutive stages:

Dismounted approach.

Fire fight.

Assault.

Reorganization.

Pursuit.

(1) *Dismounted approach.*—(a) The troop approaches mounted as far forward as terrain and tactical considerations permit. During the mounted approach, the troop commander assembles his platoon leaders and explains the situation, based on information received from his covering detachment and other sources. When it is impracticable to continue the mounted approach, the troop commander causes the troop to fight on foot

and gives instructions to the stable sergeant for the disposition of the led horses which should be held mobile. The stable sergeant places the led horses, grouped by platoon, under cover, maintains contact with the troop commander, and directs the forward movement of the led horses as the situation permits.

(b) The troop commander then issues his order for the dismounted approach, prescribing the formation and direction and including instructions for the movements of the light machine-gun platoon. He also designates the base unit and directs any special security measures.

(c) The formation should be flexible, suitable to the terrain, and permit a maximum use of cover. It should also conform to the expected scheme of maneuver for the attack. In open country where the situation is reasonably clear, the troop may be initially deployed with two rifle platoons in front and one in rear. If the situation is obscure or a covered route is available, the approach may be made in column of platoons; necessity for flank protection may require an echeloned formation.

(d) The intervals should be sufficient to provide maneuver space without loss of contact and platoons in column should follow at close supporting distance. Distance between platoons should be from 100 to 200 yards in the open and less in broken country. When the troop is in a triangular formation, the troop commander designates the base. As the approach progresses, platoon leaders may vary their formations or even deviate temporarily from the prescribed route, depending on the terrain and their exposure to fire, provided they conform to the plan of the troop commander.

(e) The light machine-gun platoon follows the troop, moving by bounds along a route facilitating prompt fire support. As this support cannot be properly rendered if the guns must be carried by hand more than 400 to 500 yards, the light machine-guns should be displaced forward in pack in long dismounted approaches. If the terrain will not permit the light machine-gun platoons to make the movement mounted, the pack horses may be led forward by men on foot.

(f) The troop commander prescribes the direction of advance, considering the location of the objective and routes thereto which will permit the troop to move by bounds and deploy on favorable terrain.

(g) Close-in protection is provided by leading rifle platoons at distances of from 100 to 300 yards. Distant flank protection, if needed, is provided by special patrols from the rear platoons at distances of from 300 to 500 yards.

(2) *Fire fight.*—(a) When necessary for the troop to advance under its own fire, the troop commander formulates his plan of attack, considering the need of fixing the enemy by fire, of seizing controlling terrain features by maneuver, and of assisting the main effort. The scheme should be simple and combine fire and movement. Normally the troop attacks with two rifle platoons in the assault and one in support. The scheme of maneuver may involve a close envelopment or a wider flanking movement. Platoons operate within supporting distance. The light machine-gun platoon is used as a unit when the terrain affords a position that assures close support. Separate light machine-gun squads are attached to rifle platoons operating where close supporting fires cannot be applied from a central position. The covering detachment (a rifle squad of the leading platoon) protects the troop until relieved by scouts when it is absorbed by the platoon in the attack. The support platoon is the maneuvering element of the troop commander. It may initially remain under cover or it may follow by bounds, usually behind the main effort. The leader of the support platoon keeps himself informed of the situation and maintains communication with the troop commander. Leading platoons provide their own close-in flank security. Distant security, if needed, is provided by small patrols from the support platoon.

(b) Attack orders of the troop commander include the following:

1. New information of the enemy.
2. Squadron plan of attack, if the troop is attacking as the dismounted element of a squadron in a combined attack.
3. Brief outline of troop plan of attack; direction, line of departure or areas from which to attack, and time of attack.
4. Mission of each platoon; assistance to main effort (stress plan of fire support of light machine-gun platoon).
5. Special security measures needed.

6. Direction of evacuation for wounded.

7. Initial location of troop commander.

(c) After the attack is launched, the troop commander intervenes only when it is necessary to urge forward a hesitant unit, to insure cooperation, to assure maximum use of supporting fires, and to commit the support which should be employed as a unit. The squadron commander is kept informed.

(3) *Assault*.—The assault is the final phase of the attack, wherein the troop closes with the enemy to destroy him. It is delivered at the earliest moment that promises success, usually when assault platoons are within less than 300 yards of the objective. It is necessary to have superiority of fire through supporting weapons or to have seized controlling terrain features by maneuver, preferably both, before launching the final assault. The assault may be launched on the initiative of platoon leaders or it may even be initiated by squad leaders. Men of the assault platoons advance rapidly, firing at targets opposing their advance. Pistols and clubbed rifles are used in close combat. If assaulting units are held up, all available supporting fires are brought to bear and the units are reorganized for a renewal of the attack.

(4) *Reorganization*.—When the objective is taken, the troop is reorganized and preparations are made for the resumption of the advance or for the organization of the position for defense in accordance with the mission.

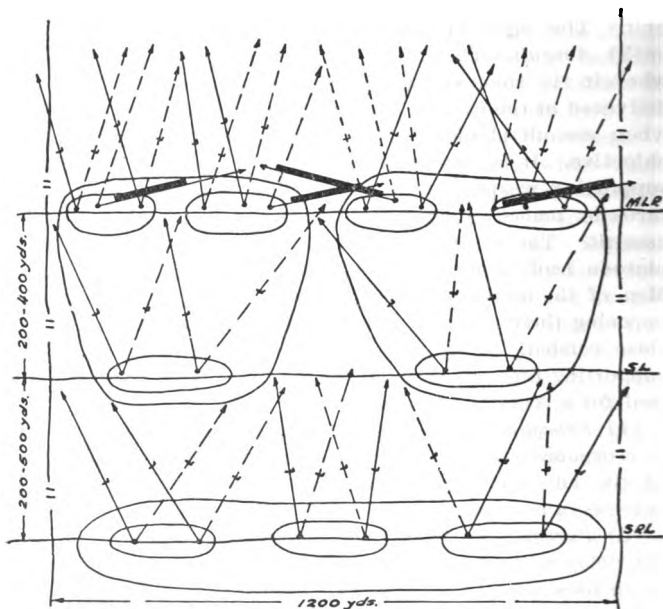
(5) *Pursuit*.—Pursuit by fire and movement is initiated without delay when the withdrawal of the enemy is apparent. A troop uses direct pressure and a close-in envelopment. Direct pressure is applied by fire of the light machine-gun platoon. A rifle platoon, or more, may be mounted for the close-in envelopment of the retreating enemy. Extent of the pursuit depends on the mission of the troop. Control must be maintained.

b. As part of a squadron.—(1) The troop commanders accompany the squadron commander during the mounted approach.

(2) The squadron commander prescribes the disposition of led horses, the functioning of the covering force, the scheme of maneuver for the dismounted approach, special security measures to be taken, and squadron plan of attack, including the combat missions of the troops. He also makes provisions for reorganization and pursuit.

(3) In principle, the troop attacks as described in *a* above, the troop acting alone.

469. Defense.—a. By troop operating as part of a squadron.—A squadron in position or deployed defense is disposed in three elements; security forces, holding forces, and reserve.



— Legend —

LIGHT MACHINE GUN —

Main direction of fire for one gun

Other limit of sector " " "

Note: Light machine guns supplement missions of H.M.G. by filling gaps in their final protective lines.

HEAVY MACHINE GUN —

Final Protective Line for one gun

Other limit of sector " " "

Note: Heavy machine guns are only far enough forward to establish final protective lines.

MLR—Main Line of Resistance.

SL—Support Line.

SRL—Squadron Reserve Line.

○ Platoon Area



Area of Front Line Troop



Area of Troop in Squadron Reserve

FIGURE 40.—Occupation of defensive position by front line squadron.

(1) *Advance information received.*—Previous to occupation of the position, the troop commander receives information from the squadron commander to include the following:

- (a) Pertinent new information of the enemy.
- (b) Mission of the squadron; general plan of defense.
- (c) Troop sector; boundaries; limiting points and other general points on main line of resistance and support line; general direction of successive defensive lines outside the squadron sector (if the squadron is not acting alone).
- (d) Avenues of approach in the troop sector, defense of which is vital to the squadron.

(e) Number and general location of supporting weapons in the squadron sector.

(f) Local security to be provided.

(g) Disposal of led horses.

(h) Location of squadron and troop command posts.

(2) *Distribution of troops.*—(a) *Security forces.*

1. *Distant security.*—Distant security is provided by a mobile covering force and by patrols from the reserve.

2. *Local security.*—Local security is provided by groups (not to exceed one rifle squad per troop) on commanding ground, generally from 200 to 400 yards in advance of the main line of resistance although in some cases it may coincide with the main line of resistance. The observation groups are furnished by support platoons of front line troops. In addition each front line platoon establishes a platoon sentry in the daytime and a listening post at night in the platoon area.

(b) *Holding forces.*—In a squadron position, the units occupying the battle position (main line of resistance and the support line) constitute the holding forces. Squadrons are usually disposed with two front line troops and one in reserve.

1. *Main line of resistance.*—Front-line troops are usually deployed with two platoons in front and one in support. The troop sector may vary from 300 to 700 yards in width, depending on the terrain and the character of the defense. Front-line platoons are assigned defensive areas in the troop sector, organized

as platoon areas, the forward edges of which are the main line of resistance. The mission of these platoons is to stop the hostile attack in front of the main line of resistance. Each platoon area covers an area of about 150 by 100 yards. They are located to deny to the enemy avenues of approach leading toward vital terrain features. Each platoon area should be capable of all-around defense and able to cover by fire its own front, adjacent intervals, and fronts of adjacent platoon areas. Flank platoons are organized in depth for protection of the flank. The rifle men of each platoon are located within the platoon area in squad or half-squad groups. The mission of these platoons is to—

- (a) Protect the machine guns.
- (b) Fire in the intervals not covered by machine guns.
- (c) Execute local counterattacks.

2. *Support line.*—Support platoons are assigned defensive areas to be organized as platoon areas, the forward edges of which are the support line, which is about 200 to 400 yards in rear of the main line of resistance. Support platoons on the flank are usually organized in depth; those of interior troops have more lateral extension. The mission of the support platoons is to—

- (a) Protect the flanks of the troop.
- (b) Fire in the intervals between forward platoon areas.
- (c) Limit hostile penetrations on the main line of resistance.
- (d) Execute local counterattacks.

(c) *Squadron reserve.*—One rifle troop, less detachments, normally constitutes the squadron reserve. It is located behind the squadron reserve line, which is usually from 300 to 500 yards in rear of the support line. The squadron reserve area is organized but not occupied. If the squadron is acting alone, the reserve is held mobile (with the horses immediately available). The mission of the squadron reserve is to—

- 1. Protect the rear flanks of the squadron.

2. Limit hostile penetrations in the support line.
3. Counterattack.
4. Initiate the offensive when it is resumed (in the case of a squadron acting alone).
5. Provide special security detachments.

(3) *Organization of the positions by front-line troops.*—(a) *Final information received by the troop commander.*—After initial dispositions have been made for the occupation of the position, each front-line troop commander receives the following information from the squadron commander:

1. Exact locations and missions of supporting weapons in the squadron sector, including final protective and sector fires of heavy machine guns in the squadron sector.
2. Administrative details.

(b) *Troop supporting weapons.*—The light machine-gun squads are attached to rifle platoons of the front-line troops to facilitate occupation of the position. Initially the guns are located by the rifle platoon commanders. Later the leader of the light machine-gun platoon coordinates the fire of these guns with those of adjacent units and with the heavy machine guns.

(c) *Protection of supporting weapons.*—Supporting weapons on the main line of resistance are located within platoon areas. Those in rear of the main line of resistance are protected by nearest groups.

(d) *Organization of the ground.*—Fields of fire are cleared, machine guns are emplaced, individual pits are dug, and the position is otherwise improved as well as facilities permit. If the enemy has mechanization, efforts are made to provide anti-mechanization obstacles.

(e) *Communication.*—Command posts are definitely located for all units. Each unit establishes communication with adjacent units and their own subordinate units. When occupying a wide front, it may be practicable to retain a mounted messenger at troop and squadron headquarters.

(4) *Administrative details.*—(a) *Led horses.*—Led horses are disposed by the stable sergeant as directed by the troop commander in accordance with orders from the squadron commander. Led horses may be mobile or immobile in accordance

with the character of the defense. If led horses are immobilized, the released horse holders bring forward extra ammunition.

(b) *Other details.*—For a protracted defense, the troop commander initiates arrangements for supply and evacuation in accordance with orders from the squadron commander.

b. *By troop alone.*—(1) In the defense of a locality, the troop must be disposed for an all around defense. The plan of defense formulated by the troop commander after a reconnaissance should include security measures, assignment of areas to platoons, a reserve and its location, location of led horses, and means of communication to be employed.

(2) Day and night patrolling at irregular times and over varying routes should be utilized to prevent surprise attacks.

(3) Squad positions are organized in the platoon areas but not occupied. Sentries are in observation and squads are held in readiness for prompt occupation of their positions when an attack is imminent. The light machine guns are normally attached by squads to the rifle platoons. The light machine-gun platoon leader coordinates the plan of defensive fires for the machine guns.

(4) A mobile reserve of at least a platoon should be provided.

(5) The led horses should be placed under cover in an easily accessible position within the area.

(6) All means of communication between units must be utilized.

470. Delaying action.—a. In delaying actions, the light machine-gun squads are habitually attached to the rifle platoons. The troop is deployed on a wide front with little or no depth and is withdrawn before becoming closely engaged. Led horses are held mobile as close to their platoons as conditions permit.

b. If ordered to delay in successive positions, the troop commander should occupy a delaying position with part of the troop and indicate a position in rear to be occupied by the remainder. Successive positions are preferably within range of light machine guns. The troop commander remains with those elements nearest the enemy, which he withdraws at the proper time. When the troop commander withdraws the elements in contact, he directs their movement so as not to mask the fire

of the elements in rear. He indicates the position they are to occupy and then joins the element which will next delay the enemy.

c. If ordered to delay on one position, all the rifle platoons may be employed abreast. The troop commander determines the time, direction, and method of withdrawal. Delaying units are usually withdrawn by echelon from the least involved flank.

SECTION VII

CALIBER .30 (HEAVY) MACHINE-GUN SQUAD

471. Organization.—The caliber .30 (heavy) machine-gun squad consists of a machine gun, its equipment and initial ammunition supply, a squad leader, and six privates.

472. Employment.—The squad is habitually employed in the section. Whenever it is used alone, the principles governing the employment of the caliber .30 (heavy) machine-gun section apply. (See sec. VIII.)

473. Assignment of missions.—Regardless of the tactical situation and whether the target is on the ground or in the air, missions are normally assigned to the machine-gun squad by the section or platoon leader in the form of fire orders. These orders will include the range to and the direction and description of the target, the part of the target to be fired upon, the type, rate, and time of opening fire, and the command or signal to commence firing. In emergencies, orders will be brief, probably containing only range, direction, target, amount of lead (where applicable), and the order to commence firing.

474. Targets.—The caliber .30 (heavy) machine gun is normally used against personnel targets and low-flying aircraft. To amplify or to substitute for the fire of more suitable weapons, it may be used to fire at mechanized targets and enemy machine guns.

475. Initial firing position.—*a. Selection.*—(1) Tactical considerations permitting, machine-gun positions should provide for observation of fire, engagement of targets in their longest dimension, and the application of fire at an angle of 90° to the axis of advance of the rifle elements. Alternate positions should be selected at the earliest possible moment.

(2) When speed of opening fire is the most essential factor, little or no time can be spent in detailed reconnaissance for a position. The squad leader precedes his squad by a sufficient distance to permit him to select the best position within the ground limits assigned him.

b. Occupation.—(1) When sufficient time is available, the squad leader halts the squad under cover in rear of the position where it is proposed to mount the gun and, leaving No. 1 in charge, makes a reconnaissance by proceeding, mounted or dismounted, in accordance with the nature of the action or position, in the direction in which it is proposed to go into action. If he proceeds mounted, he is accompanied by a designated member of the squad. He halts under cover in rear of the locality where it is proposed to mount the gun, dismounts, turns his horse over to the member of the squad who accompanied him, and goes forward the remaining distance on foot. He selects the exact location for the gun, then returns to where he dismounted and signals for the squad to move forward. If impracticable to signal, he sends the private to lead it forward.

(2) When the squad has reached the squad leader, he commands: **ACTION FRONT.** All halt, with the exception of No. 4 and pack animal No. 1 who move forward a sufficient distance to allow the squad to unpack pack animal No. 1 without interference. The squad leader links his horse to the left side of No. 1's horse. He then secures the box of ammunition which has been unpacked by No. 2, moves rapidly to the spot where the gun is to be located and indicates with his arm the direction in which the gun is to point. Simultaneously Nos. 1 to 3, inclusive, dismount and pass their snaffle reins to the corresponding horseholders who grasp them in such a manner as best to control the animals. No. 1 moves rapidly in front of No. 4 to the right side of pack animal No. 1 and releases the tripod. He carries the tripod to the spot marked by the squad leader and mounts it. No. 2 moves rapidly in front of No. 5 and, approaching pack animal No. 1 from the rear, pushes the animal's haunches to the right. He releases the box of ammunition and throws it to the front where it can be readily obtained by the squad leader, after which he releases the gun and carries it to the position marked by No. 1.

With the assistance of No. 1, No. 2 places the gun in its position on the tripod. No. 3, moving rapidly and approaching pack horse No. 2 from the rear, pushes the horse's haunches to the right and unpacks ammunition and water from the left, then from the right side. He then unpacks such additional ammunition from pack horse No. 2 as needed to provide the amount specified by the squad leader. No. 3 now passes to pack horse No. 1 and releases the spare parts roll. He carries the spare parts roll and one box of ammunition to the gun, places them in reach of No. 2, and takes position in rear so as to maintain communication between the led horses and the gun. He transmits all messages and relays ammunition, etc., to the front.

(3) The squad leader and Nos. 1 and 2 move to their positions at the gun successively, avoiding bunching. They conceal themselves from the enemy and move forward under cover to keep from disclosing themselves to the enemy.

(4) No. 4 commands the led horses and promptly moves them to the designated position as soon as No. 3 has unpacked such ammunition, water, etc., as is required. When the horses have been placed under cover, No. 6 may be ordered to turn his horses over to Nos. 4 and 5 and assist No. 3 in supplying ammunition, etc., to the gun.

(5) When time is not available for the deliberate occupation of a position, the squad executes *to fight on foot* as described for mounted drill of the machine-gun squad. (See sec. IX, ch. 1.)

476. Change of positions.—*a.* Machine guns will frequently have to occupy new positions which are designated by the section leader. Squad leaders must prepare for this by making a visual reconnaissance to select covered routes to such positions.

b. Whenever possible, change of positions involving movement over a considerable distance should be made in pack with the members of the squad either mounted or dismounted. Where hostile fire will not permit of a mounted advance, gun and ammunition packs may be led forward by dismounted men. Frequently, however, the change must be made by hand, in which case the methods prescribed in section XVI, chapter 1, will be used.

477. Led horses.—Normally, No. 4 is in charge of the led horses of the squad. He makes such disposition of them as is directed by the section or platoon sergeant.

478. Ammunition.—The squad leader is responsible for the supply of ammunition to his gun from that carried in the squad. When necessary, he uses horseholders to relay ammunition from the pack horses to No. 3. He keeps the section leader informed as to the status of ammunition in the squad.

479. Withdrawal from action.—Led horses are brought as close to the gun position as the situation permits. In withdrawal from action under fire, the gun may be moved, as a two-man load, to cover and there dismounted and packed. Such withdrawals should be protected by rifle units in position or assigned for the protection of the machine guns.

SECTION VIII

CALIBER .30 (HEAVY) MACHINE-GUN SECTION

480. Organization.—The caliber .30 (heavy) machine-gun section consists of two machine-gun squads and a section leader.

481. Employment.—The section is the fire unit. In order to insure continuity and a decisive volume of fire, both guns are assigned the same mission whenever possible. The section is normally employed as a part of a machine-gun platoon but may be attached to a rifle unit. Under all conditions machine guns should be protected, directly or indirectly, by rifle elements.

482. Assignment of missions.—Missions may be assigned to the section leader in the form of fire orders or in terms of the result to be accomplished. In the first case very little change will be required before the fire orders are issued to the squad. In the second case the section leader will have to formulate and issue a fire order which will assure the support ordered.

483. Targets.—These are the same as described for the squad. For methods of application of fire on targets, see chapters 3 and 4, part 3, and chapters 1 and 3, part 6, BFM, volume III.

484. Initial firing position.—*a. Selection.*—The principles and methods given for the squad are equally applicable to the section. When the section is not operating as part of a platoon, the tactical situation of the rifle unit to which attached must be

considered by the section leader; in this case the principles governing the selection of initial firing positions for the platoon apply.

b. Occupation.—(1) When sufficient time is available the section leader halts the section and, accompanied by the squad leaders and a designated private, proceeds mounted or dismounted, in accordance with the nature of the action, toward the area from which he expects to open fire. A designated No. 1 remains in charge of the section. The section leader and his group, if mounted, halt under cover in rear of the area, dismount, and go forward the remaining distance on foot. The private holds the horses. The section leader determines the general location for each squad, gives his fire order, and remains in observation. The squad leaders move back to the horses and signal for the section to be brought up or send the private to lead it up.

(2) When the squads arrive at the location of the squad leaders the guns are put into position as described for the squad.

(3) When time is not available for the deliberate occupation of a position, the section executes *to fight on foot* as described for mounted drill of the machine-gun section. (See sec. XII, ch. 1.)

485. Change of positions.—The section may change position as a unit or by successive movements by squads. In either case the methods described for mounted drill, the caliber .30 machine-gun squad, apply. (See sec. IX, ch. 1.)

486. Led horses.—*a.* The led horses of the section, in charge of a designated No. 4, are normally held under cover, mobile, as closely in rear of the firing position as the situation permits. In a defensive position they may be held, immobile, well to the rear.

b. When the section is part of a platoon, the platoon leader designates the location for the led horses. When attached to a rifle unit the rifle unit commander assigns the location.

487. Ammunition.—The section leader assures the supply of ammunition to the squads in the section. When the section is attached to a rifle unit, additional ammunition packs from the ammunition section of troop headquarters may be attached to it. He keeps his platoon leader or the commander of the rifle unit to which attached informed as to the status of ammunition

in the section. The platoon leader or the commander of the rifle unit, as the case may be, supplies ammunition to the section.

488. Withdrawal from action.—The methods described for the squad apply to the section. The section leader prescribes the route and time of withdrawal and the assembly area.

SECTION IX

CALIBER .30 (HEAVY) MACHINE-GUN PLATOON

489. Organization.—The caliber .30 (heavy) machine-gun platoon consists of two sections and a platoon headquarters. The platoon headquarters includes a platoon leader, a platoon sergeant, and two messengers.

490. Employment.—The machine-gun platoon may operate as part of the troop or may be attached to a rifle unit. Under all conditions, machine guns should be protected, directly or indirectly, by rifle elements.

491. Assignment of missions.—*a.* Normally, the platoon will be given a mission in terms of the result to be accomplished. The platoon leader decides the most efficient methods to be used to secure this result, such as relative importance of targets, number of guns to be used (depending on size and shape of target), ammunition expenditure on each target (depending on ammunition available and number of targets), type and class of fire, initial positions for sections, and troop safety.

b. The platoon leader coordinates the fires of the sections. The fire power of the whole platoon may be placed on a single target or each section may be assigned a target. Exceptionally, each squad may be assigned a target. After arriving at the decision, he must issue fire orders to his section leaders.

c. In emergencies it may be necessary for the platoon leader to act without specific orders. Knowing the general plan of the commander, the platoon leader must act instantly and boldly to carry out that plan. In this case, orders to the sections will be brief and fragmentary.

492. Targets.—These are the same as described for the machine-gun section. (See par. 483.)

493. Initial firing positions.—*a. Selection.*—(1) *General.*—(a) The principles given for the squad apply equally to the platoon, but the tactical situation is usually the paramount factor.

(b) When the platoon is operating as a part of the troop, position areas will be assigned by the troop commander.

(c) When the platoon is attached to a rifle unit, the platoon leader must select his own position area. In all cases, alternate positions from which missions can be executed are selected.

(2) *Support of a mounted attack.*—(a) In support of a mounted attack, positions should be sought which are large enough for the whole platoon, which give clear observation of the enemy position and of the ground over which the mounted attack must move, and from which the direction of fire is at a right angle to the direction of attack. This permits the delivery of fire throughout the entire maneuver of the mounted elements and enfilade fire on enemy elements which shift their front to oppose the attack.

(b) Positions should be not farther to the rear than the geographical crest of ridge from which the firing is to take place and may be on the forward slope.

(c) As much advantage should be taken of cover as time and terrain conditions permit.

(3) *Support of a dismounted attack.*—In support of the dismounted attack, a centrally located position is sought from which fire may be placed on the enemy position to cover the advance of maneuvering rifle units until they close with the enemy. Preferably, these positions should be behind crests providing sight defilade to the guns. They may be on crests or forward slopes from which plunging fire may be placed in close support of the attack. At times unfavorable terrain may necessitate fire being delivered through a gap between rifle units advancing to the attack. Close and broken terrain may force the locating of the sections separately in order to give the required fire support. When no good position area exists in the zone of advance of the rifle unit to which the machine-gun platoon is attached, a more suitable position area in the zone of an adjacent unit may be occupied with the permission of the commander concerned. Under all conditions, the platoon leaders select the gun positions which permit of the most nearly continuous fire support of the rifle units engaged.

(4) *Defense.*—(a) Positions for forward guns should permit of firing final protective line missions in front of the main line of resistance and of interlocking with the bands of fire of flank

units. They must also allow firing on enemy attack formations before the assault and on areas known or suspected of being assembly areas.

(b) Rear gun positions should be located so that fire may be placed in front of the main line of resistance, along the flanks of organized areas, on enemy assembly areas and attack formations, and in front of the squadron or regimental reserve lines, as the case may be.

(c) Supplementary positions from which fire can be brought to bear to protect the defense from attacks from unexpected directions should also be selected.

(d) According to the time available for the organization of the defense, positions are selected with varying degrees of exactness, but in any event the fires of the platoon will eventually have to be coordinated with those of adjacent heavy machine guns, light machine guns, and other supporting weapons.

(e) Daylight positions are initially selected. It may be necessary to select other positions for night defense. All positions and routes thereto should provide for as much concealment from observation and protection from fire as is possible.

(5) *Delaying action.*—Positions in delaying actions should have good observation and good fields of fire at long and mid ranges. Cover immediately in rear is essential to protect squads during the withdrawal. Geographical crests of ridges and the front edges of woods and towns usually provide the best locations.

(6) *Reconnaissance and security.*—(a) The platoon leader of a platoon attached to an advance flank or rear guard, or to a reconnaissance or counterreconnaissance detachment should maintain a continuous map and visual reconnaissance of the terrain for gun positions from which he can place fire to assist the rifle unit in the execution of its plan. When a combat situation arises, he amplifies this by as detailed a personal reconnaissance as time permits and selects positions, as described above, for the type of action contemplated.

(b) On outpost, positions are selected for both day and night defense to cover likely avenues of enemy approach and to place bands of fire in front of outguards. These positions are usually not occupied except in case of impending attack. Routes to

these positions are reconnoitered and marked so that the guns may be put in action without delay.

b. *Occupation*.—(1) When sufficient time is available, the platoon leader halts the platoon under cover, directs the section sergeants and messengers to accompany him, and proceeds, mounted or dismounted, in accordance with the nature of the action, toward the areas from which he expects to open fire. The platoon sergeant remains in charge of the platoon. The platoon leader and his group, if mounted, halt in rear of the area, dismount, and go forward the remaining distance on foot. One messenger holds the horses. The platoon leader selects the position areas for the sections, points out these to the section leaders, and announces the ranges, targets, and types of fire to be used. The platoon leader, with one messenger, remains in observation while the section sergeants move back to the horses and either signal for the platoon to move forward or send the messenger to lead it up. When the platoon arrives at the position of the section sergeants, the sections are put in position as explained in section VIII.

(2) As soon as the guns are in position, the platoon leader sends one messenger to notify the troop commander or the commander of the rifle unit to which attached. This messenger stations himself at the command post of the higher unit as a liaison agent. The other remains with the platoon leader.

(3) When time is not available for the deliberate occupation of a position, the platoon executes *to fight on foot* on or near the position as described for mounted drill of the machine-gun platoon. (See sec. XIII, ch. 1.)

494. *Change of positions*.—a. When fire can no longer be delivered from a position without endangering the rifle units supported, forward displacement of the platoon should be made. The platoon leader should foresee this and make a visual reconnaissance of routes and forward positions. His order for the preparation of the movement should be issued in advance of the time of starting and should include routes and position areas for the sections. Displacement should begin when the progress of the attacking rifle units and the activity of the enemy make the forward movement possible.

b. Forward displacement may be executed by the platoon as a whole or successively by sections. The platoon will displace

as a unit when ordered to do so by the troop commander when the guns of another platoon will protect the advance or when the advance of the rifle unit supported is very rapid. Displacement by section is slower but has the advantage of leaving one section temporarily in action to engage emergency targets or possible hostile counterattacks.

c. At the command of the platoon leader, one or both sections go out of action and follow him by a prescribed route or routes. If displacement is by section, a definite mission is assigned the rear section and the platoon sergeant is directed to move it forward on signal or after a specified time has elapsed. Methods used are the same as described for the machine-gun squad in section VII. The occupation of forward positions and delivery of fire proceeds as for initial positions.

495. Led horses.—*a.* The led horses of the platoon, in charge of the platoon sergeant, are normally held under cover, mobile, as closely in rear of the firing position as the situation permits. In a defensive position they may be held, immobile, well to the rear.

b. When the platoon is operating as part of a troop the troop commander designates the location for the led horses. When the platoon is attached to a rifle unit the commander of that unit has that responsibility.

496. Ammunition.—*a.* The platoon leader supplies ammunition to his sections. He requires that section leaders keep him informed as to the status of ammunition supply within their sections.

b. In the attack, the platoon ammunition distributing point is established by the platoon sergeant as far forward as it is safe to move the pack horses. From this point, ammunition carriers and designated horseholders form a chain for the rapid movement forward of ammunition.

c. In the defense and delaying action, ammunition is usually dumped at the gun position and led horses located under cover. The stability of the defense or the amount of delay directed will in each case indicate the system of ammunition supply to be established.

d. The platoon leader keeps the troop commander informed as to the ammunition requirements of his platoon. Through the platoon sergeant, he directs ammunition pack horseholders

to replenish their ammunition at the troop combat wagon or truck, when necessary.

e. When attached to a rifle unit the commander of that unit supplies ammunition to the platoon. However, when the platoon is detached from its troop it may have additional ammunition packs attached to it from the ammunition section of troop headquarters.

497. Withdrawal from action.—*a.* The methods described for the squad apply to the platoon. In accordance with the requirements of the situation the platoon leader directs the hasty or deliberate withdrawal from action of his platoon. The platoon may withdraw as a whole or successively by section.

b. The platoon leader's order for withdrawal will include time movement is to begin, whether by the platoon or by section, route or routes to be used, and subsequent position or assembly area.

SECTION X

37-MM GUN SQUAD

498. Organization.—The 37-mm gun squad consists of a 37-mm gun, its equipment and initial ammunition supply, a squad leader, and six privates.

499. Employment.—The 37-mm gun is a special purpose weapon for use against point targets such as machine guns in position. The squad is normally employed as the fire unit. It may operate as part of the section, be attached to an element of the troop or to a rifle unit.

500. Assignment of missions.—*a.* When the squad is attached to another unit, missions will normally be assigned by the unit commander in terms of the result to be accomplished. The squad leader should formulate and issue fire orders as prescribed in chapter 3, part four, BFM, volume III.

b. When the squad is operating as part of the section, missions will usually be given to it as fire orders.

c. In the absence of orders, unless a later time for opening fire has been specified, appropriate targets should be fired upon as they come within range.

501. Targets.—Enemy machine guns are the primary targets of the 37-mm gun. It may be used against mechanized targets to amplify or replace the fire of more suitable weapons. When

used against mechanization, the methods and principles described for the caliber .50 (HB) machine gun apply. (See par. 522.)

502. Selection of initial firing positions.—*a.* Positions should permit of good observation of the target area and of friendly troops. Except in emergencies or when firing at moving targets, they should have flash defilade. They may be on geographical crests or forward slopes when firing at mechanized targets if the risk is justified. Positions should be close enough to the troops supported to receive protection from them and to give the troops the full benefit of the fire of the guns.

b. Alternate positions should be selected at the earliest moment.

c. When speed of opening fire is essential, little time can be spent in reconnaissance for a position. The squad leader precedes the squad by a sufficient distance to permit him some choice.

503. Machine-gun squad methods applicable.—The following methods described for the caliber .30 (heavy) machine-gun squad, modified by the difference in equipment, apply to the 37-mm gun squad:

- a.* Occupation of initial firing position.
- b.* Changes of position.
- c.* Led horses.
- d.* Ammunition.
- e.* Withdrawal from action.

SECTION XI

37-MM GUN SECTION

504. Organization.—The 37-mm gun section consists of two squads, a section leader, and a messenger.

505. Employment.—The section is normally employed by squad but may operate as a fire unit. One or both squads may be attached to elements of the troop or to rifle units. When the squads are separated, the section leader, in the absence of orders to the contrary, commands the squad that has the more important mission. In all cases the messenger remains with him until positions are occupied. The section leader then sends the

messenger to the next higher command to report that fact and to remain with the commander as liaison agent.

506. Assignment of missions.—Missions will normally be assigned to the section in terms of the tasks to be accomplished. The section leaders formulate and issue fire orders, as prescribed in chapter 1, part 4, BFM, volume III.

507. Targets.—Enemy machine guns are the primary targets of the 37-mm gun. It may be used against mechanized targets in place of or to amplify the fire of more suitable weapons. When used against mechanization, the methods and principles described for the caliber .50 (HB) machine-gun squad apply. (See par. 522.)

508. Selection of initial firing positions.—The same considerations described for the selection of initial positions for the squad apply to the section.

509. Machine-gun section methods applicable.—The following methods described for the caliber .30 (heavy) machine-gun section, modified by the difference in equipment, apply to the 37-mm gun section:

- a. Occupation of initial firing positions.
- b. Changes of position.
- c. Led horses.
- d. Ammunition.
- e. Withdrawal from action.

SECTION XII

CALIBER .30 (HEAVY) MACHINE-GUN TROOP

510. Organization.—*a.* The caliber .30 (heavy) machine-gun troop consists of three machine-gun platoons, a 37-mm gun section, and a troop headquarters.

b. The troop headquarters is divided into a forward and rear echelon. In the forward echelon are the commander's group, consisting of the troop commander, first sergeant, and two messengers, and the command post group, which includes the second in command, stable sergeant, two buglers, a clerk, a horseshoer, and a messenger.

c. The rear echelon contains the remainder of troop headquarters, such as mess and supply sergeants, ammunition section, cooks, horseshoers, armorer, saddler, kitchen and ration

packs, and light wagons. Cooks and horseshoers lead the kitchen and ration pack horses and a wagoner drives each wagon.

511. Employment.—The troop may be employed as a whole. Usually, however, one or more platoons and one or both 37-mm gun squads will be attached to rifle elements.

a. On the march.—(1) Some machine-gun sections should be placed throughout the regimental column to assist in antiaircraft defense.

(2) The commander's group should be with the regimental commander, the command post group at the head of the troop.

(3) The pack horse group of the rear echelon should be at the tail of the troop and the wagon group as directed in regimental orders.

b. In bivouac.—The troop should be prepared both day and night to support the outposts and assist in the antiaircraft defense.

c. In combat.—The troop should be so employed that it can concentrate its fire power in support of the main effort in the attack and to break up the enemy's main effort in the defense.

512. Assignment of missions.—Missions may be assigned the troop in the regimental field order or may be issued in fragmentary form. In the absence of orders, the troop commander should employ the troop to assist in carrying out the plan of the regimental commander.

513. Targets.—Targets for the troop are the same as those described for the machine-gun and 37-mm gun squads. They are engaged as presented in BFM, volume III.

514. Initial firing positions.—*a. Selection.*—Upon receipt of orders, the troop commander makes an estimate of the situation and a decision as to the employment of the troop. He then sends the first sergeant back to the second-in-command with orders for the detachment of any elements, to bring the command post group (less the second-in-command) and platoon leaders and leader of the 37-mm gun section to a specified location, and for the second-in-command to bring the troop forward at a certain gait to an indicated area. The troop commander, accompanied by the messengers, makes a personal reconnaissance for and selects position areas for his units. He then returns to the place where he is to meet the first sergeant and his party.

b. Occupation.—(1) As soon as the platoon leaders, the leader of the 37-mm gun section, and the command post group have joined the troop commander, he issues his orders. These orders should include instructions for the employment of the machine-gun platoons and the 37-mm guns, plan of ammunition supply, locations of led horses, rear echelon, command post, and his own location.

(a) Machine-gun and 37-mm gun units occupy their positions as already described in sections pertaining to them.

(b) The troop commander accompanied by the first sergeant and one messenger watches the development of the action and prepares plans for the employment of the troop in later phases. The other messenger is sent to the regimental command post as a liaison agent. In a defensive situation, the troop commander formulates the plan for defensive machine-gun and 37-mm gun fires and coordinates the fires of the machine-gun platoons.

(c) The second-in-command sees that the command post is functioning properly and that the plan of ammunition supply is being carried out. He familiarizes himself with the situation and the troop commander's plans for the future so that he can take command in the latter's absence.

(d) The stable sergeant is in charge of the led horses. He sees that they are protected from fire and from observation. When necessary and possible, he has them watered, fed, and otherwise cared for.

(e) The mess sergeant is in charge of the kitchen and ration packs. He locates the position for the kitchen and sees to the preparation and issue of food to the troop when necessary and the situation permits.

(f) The supply sergeant, when the regimental train has been released and on orders from the second-in-command, obtains ammunition and other supplies for the troop and sees that the light wagons are refilled when necessary.

(g) The ammunition corporal reconnoiters covered routes to locations of platoon led horses, sends loaded ammunition pack animals to the platoons when necessary, and has unloaded animals returned and reloaded from the light wagons or the trucks, if released.

(h) Other members of the rear echelon are used for whatever purpose the situation dictates. They may act as messengers, ammunition carriers, replacements to gun squads, or be used to load ammunition into belts and boxes.

(2) In emergencies the gun elements may be committed to action as described in the paragraphs on To fight on foot in the drill of the unit concerned. In this case the rear establishment is set up at the earliest possible moment.

515. Change of positions.—*a.* Platoons and sections change positions as already described in sections dealing with their employment. The troop commander and his group accompany the leading platoon in forward displacements and the last platoon in rearward displacements. The command post group reverses the above order.

b. The rear echelon moves on orders of the troop commander to new locations prescribed by him.

516. Led horses.—The disposition of the led horses of platoons and sections is made by the stable sergeant.

517. Ammunition.—*a.* When machine-gun sections and platoons are detached from the troop, horseholders with ammunition pack horses from the ammunition section of troop headquarters may be attached to them.

b. The plan of ammunition supply of the troop should cover the refilling of the light wagons by the supply sergeant from ammunition procured by the regiment, the refilling of the ammunition section of troop headquarters from the light wagons, the replenishment of the platoon ammunition supply by the exchange of loaded for unloaded ammunition pack animals between the platoon and the ammunition section (effected by the latter), and the refilling of ammunition pack animals of the 37-mm gun squads directly from the light wagons.

518. Withdrawal from action.—Upon receipt of orders for withdrawal from action, the rear echelon of troop headquarters, less ammunition section, rejoins the regimental train or proceeds as otherwise ordered and the command post group moves to the assembly area followed by the ammunition section. The machine-gun platoons and 37-mm gun section withdraw from action under supervision of the troop commander who accompanies the last unit. Machine-gun platoons and the 37-mm gun

section withdraw as prescribed in the sections dealing with their employment.

SECTION XIII

CALIBER .50 (HB) MACHINE-GUN SQUAD

519. Organization.—The caliber .50 (HB) machine-gun squad consists of a machine gun, its equipment and initial supply of ammunition, a squad leader, and six privates.

520. Employment.—The caliber .50 (HB) machine-gun squad is normally employed to provide protection against hostile mechanization. It may operate as a part of a section or may be attached to a rifle unit. In the latter case, if caliber .30 (heavy) machine guns are also attached to the rifle unit, it may operate directly under the command of the rifle unit commander or be combined with the caliber .30 machine-gun element.

521. Assignment of missions.—*a.* On the march, in bivouac, or in combat, missions will usually be assigned in terms of the results to be accomplished, such as, "From the vicinity of that hill, protect the left flank," "From the vicinity of that cross-roads, protect the column until the tail has cleared this point." When a target appears, the squad leader will formulate and issue fire orders.

b. In the absence of orders, unless restrictions on firing have been imposed, targets should be fired upon as soon as they come within effective range.

522. Targets.—The primary target of the caliber .50 (HB) machine gun is enemy mechanization. It may be used against machine guns in place of or to amplify the fire of more suitable weapons. It also has a limited use against aircraft.

523. Initial firing positions.—*a. Selection.*—(1) A firing position should permit good observation over likely avenues of approach of hostile mechanized elements. As much use of cover should be made as is possible and still allow the gunner to see all of the assigned sector through the telescopic sight.

(2) The position selected should be close enough to other friendly troops to be protected by them.

(3) When time is available, several positions from which the same field of fire can be covered should be selected as well as covered routes between them.

b. Occupation.—(1) This is the same as for the caliber .30 (heavy) machine-gun squad with the following exceptions:

(a) The squad leader links his horse to the near side of No. 1's horse. He then moves directly to the spot where the gun is to be mounted, carrying with him the telescopic sight.

(b) No. 2 releases the receiver and carries it to the gun position marked by No. 1. With the assistance of No. 1, No. 2 places the receiver in position on the tripod. No. 1 secures the telescopic sight to the receiver.

(c) No. 3, moving rapidly in rear of pack horse No. 3 to the off side of pack horse No. 1, releases the chest of spare parts and ammunition and the barrel and carries them to the gun. He drops the chest on the ground at the left of the receiver, then attaches the barrel to the receiver. He then unloads the number of boxes of ammunition specified by the squad leader and takes position in rear so as to maintain communication between his position and the guns. He transmits all messages, relays ammunition, etc., to the front.

(2) An occupied position should not be disclosed to the enemy until a target appears within range.

(3) If sufficient time is not available for the deliberate occupation of the position, the squad executes *to fight on foot* as described for mounted drill of the machine-gun squad. (See sec. IX, ch. 1.) This method will be usual in most situations except in a deliberately prepared attack or defense.

524. Caliber .30 (heavy) machine-gun squad methods applicable.—The following methods described for the caliber .30 (heavy) machine-gun squad, modified by the difference in equipment, apply to the caliber .50 (HB) machine-gun squad:

- a.* Change of position.
- b.* Led horses.
- c.* Ammunition.
- d.* Withdrawal from action.

SECTION XIV

CALIBER .50 (HB) MACHINE-GUN SECTION

525. Organization.—The caliber .50 (HB) machine-gun section consists of two squads and a section leader.

526. Employment.—*a.* The section may be attached to a rifle unit or be combined with an element of the caliber .30 (heavy) machine-gun troop. Exceptionally it may be employed as part of a platoon. It may be used as a unit or as two squads. In the latter case, the section sergeant commands the one with the more important mission.

b. On the march, when enemy mechanized attack is expected, continuous protection of a rifle unit may be assured by leap-frogging squads, having one squad in position at all times.

527. Squad methods and principles applicable.—The following methods and principles described for the squad are applicable to the section:

- a.* Assignment of missions.
- b.* Targets.
- c.* Selection of initial firing position.

528. Caliber .30 (heavy) machine-gun section methods applicable.—The following methods described for the caliber .30 (heavy) machine-gun section, modified by the differences in equipment, are applicable to the caliber .50 (HB) machine-gun section:

- a.* Occupation of initial firing position.
- b.* Changes of position.
- c.* Led horses.
- d.* Ammunition (except extra packs).
- e.* Withdrawal from action.

SECTION XV

CALIBER .50 (HB) MACHINE-GUN PLATOON

529. Organization.—The caliber .50 (HB) machine-gun platoon consists of two sections and a platoon headquarters. The platoon headquarters includes a platoon leader, a platoon sergeant, and two messengers.

530. Employment.—*a.* The platoon may be employed as four squads or two sections. Exceptionally it may operate as a unit. It may be attached to a rifle unit or operate as part of the troop. The platoon may be used to protect an exposed flank and have rifle elements attached to it for its close protection.

b. When the platoon is used as four separate squads or as two sections, platoon headquarters should normally accompany troop headquarters or the headquarters of the unit to which

attached. The platoon leader and one messenger may accompany the element having the most important mission, the platoon sergeant accompanying the one with the next most important mission. One messenger remains at the next higher headquarters as liaison agent.

531. Section methods and principles applicable.—The following methods and principles described for the section are applicable to the platoon:

- a.* Assignment of missions.
- b.* Targets.
- c.* Selection of initial firing positions.

532. Caliber .30 (heavy) machine-gun platoon methods applicable.—The following methods described for the caliber .30 (heavy) machine gun, modified by differences in equipment, are applicable to the caliber .50 (HB) machine-gun platoon:

- a.* Occupation of initial firing positions.
- b.* Changes of position.
- c.* Led horses.
- d.* Ammunition (except extra packs).
- e.* Withdrawal from action.

SECTION XVI

CALIBER .50 (HB) MACHINE-GUN TROOP

533. Organization.—*a.* The caliber .50 (HB) machine-gun troop consists of three machine-gun platoons and a troop headquarters.

b. The troop headquarters is divided into a forward and rear echelon. In the forward echelon are the commander's group, consisting of the troop commander, first sergeant, and two messengers; and the command post group, which includes the second-in-command, stable sergeant, two buglers, a clerk, a horseshoer, and a messenger. The rear echelon contains the remainder of troop headquarters, such as mess and supply sergeant, cooks, horseshoers, armorer, saddler, kitchen and ration packs, and light wagons. Cooks and horseshoers lead the kitchen and ration pack horses, and a wagoner drives each wagon.

534. Employment.—Exceptionally the troop may operate as a unit. Normally, however, much of its strength is attached to rifle units.

a. On the march.—Squads and sections should be so disposed as to protect the regimental column from mechanized attack. This may be done by leap-frogging if immediate attack is probable, or placing the guns through the column if no attack is imminent. The commander's group should be with the regimental commander, the command post group at the head of the troop. The pack horse group of the rear echelon should be at the tail of the troop and the wagon group as directed in regimental orders.

b. In bivouac.—The troop should be prepared at all times to protect the bivouac area and outpost from mechanized attack. If conditions permit, some guns may be placed to assist in the antiaircraft defense.

c. In combat.—The troop should be so employed as to protect all major elements of the command from mechanized attack or counterattack.

d. Reconnaissance and security.—Advance, flank, and rear guards and reconnaissance and counterreconnaissance detachments the size of a troop or larger should have caliber .50 (HB) machine-gun sections or platoons attached to them.

535. Assignment of missions.—Missions may be assigned the troop in the regimental field order or may be issued in fragmentary form. In the absence of orders, the troop commander should employ the troop so as to protect the regiment from attack or counterattack.

536. Targets.—Targets are the same as those described for the caliber .50 (HB) machine-gun and 37-mm gun squads. They are engaged as prescribed in BFM, volume III.

537. Initial firing positions.—**a. Selection.**—Upon receipt of orders, the troop commander makes an estimate of the situation and a decision as to the employment of the troop. He sends the first sergeant back to the second-in-command with orders for the detachment of any elements, to bring the command post group (less the second-in-command) and the platoon leaders to a specified location, and for the second-in-command to move the troop at a certain gait to an indicated area. The troop commander, accompanied by the messengers, makes as detailed a personal reconnaissance as time permits. From this reconnaissance and a study of his map, he selects position areas for his units and decides on their distribution.

He then returns to the place where he is to meet the first sergeant and his party.

b. Occupation.—(1) As soon as the platoon leaders and the command post group (less the second-in-command) have joined the troop commander, he issues his orders, which should include instructions for the employment of all gun elements, plan of ammunition supply, location of led horses, rear echelon, command post, and his own location.

(2) Machine-gun units occupy their assigned positions as already described in sections pertaining to them.

(3) The troop commander, accompanied by the first sergeant and one messenger, watches the development of the action, makes such changes in initial dispositions as are necessary, and prepares plans for the employment of his command in later phases of the action. The other messenger is sent to the regimental command post as a liaison agent.

(4) The second-in-command, stable sergeant, mess sergeant, supply sergeant, and other members of the rear echelon perform the same duties as corresponding members of the headquarters of the caliber .30 (heavy) machine-gun troop in the same operation.

(5) The rear echelon moves on orders of the troop commander to new locations prescribed by him.

538. Led horses.—The disposition of the led horses of gun elements is made by the stable sergeant.

539. Ammunition.—The plan of ammunition supply should cover the refilling of the light wagons by the supply sergeant from ammunition procured by the regiment and the refill of the ammunition packs of the gun squad direct from the light wagons or from distributing points established by the light wagons.

540. Withdrawal from action.—Upon receipt of orders for withdrawal from action, the rear echelon of troop headquarters rejoins the regimental train or proceeds as otherwise ordered, and the command post group moves to the assembly area. The gun elements withdraw from action under the supervision of the troop commander who accompanies the last element. Gun elements withdraw as prescribed in the sections dealing with their employment.

SECTION XVII

STAFF PLATOON

541. Organization.—The staff platoon consists of two sections; an operations and intelligence section, horse, and an administrative and supply section, motor.

542. Employment.—The staff platoon is employed in the field as a regimental agency for command and staff purposes. The platoon does not function as a unit; ordinarily the operations and intelligence section is employed with the forward echelon, regimental headquarters; and the administration and supply section at the rear echelon, regimental headquarters.

543. Operation.—*a.* The primary duty of the operations and intelligence section is to keep the commander informed of the situation and to enable him to prepare, record, and transmit his orders. To accomplish the foregoing, the section furnishes the personnel necessary for operations under the regimental plans and training officer (S-3) and for intelligence under the regimental intelligence officer (S-2).

b. The administrative and supply section furnishes the personnel, matériel, and motor transportation required to perform the administrative functions of the command, operating respectively under the regimental adjutant (S-1) and the regimental supply officer (S-4).

544. Duties of members.—*a. Operations and intelligence section.*—(1) *Sergeant major.*—The sergeant major is the principal enlisted assistant of the adjutant. In the field the sergeant major is charged with the administration of the command post group of the forward echelon except that on the march he rides with the commander's group.

(2) *Intelligence sergeant.*—The intelligence sergeant is assistant to the intelligence officer. He keeps the necessary situation maps and trains clerks and messengers in intelligence duties. On the march he rides with the commander's group.

(3) *Plans and training sergeant.*—The plans and training sergeant is assistant to the plans and training officer; he keeps the necessary operations maps and records data for the diary; he must be skilled in combat order procedure; he trains clerks and messengers in operations duties. On the march he rides with the commander's group.

(4) *Sergeant bugler*.—The sergeant bugler sounds the regimental calls, trains the troop buglers, and commands the field music. On the march he rides with the commander's group.

(5) *Clerks*.—The clerks record intelligence and operations data. On the march they ride with the commander's group and act as horseholders for the intelligence and plans and training sections.

(6) *Messengers*.—In addition to their duties as messengers, three of them act as horseholders for and perform such other duties as may be prescribed by the colonel or staff officers of the commander's group. On the march they ride with the commander's group.

b. Administrative and supply section.—(1) *Regimental supply sergeant*.—The regimental supply sergeant is the principal enlisted assistant of the regimental supply officer. In the field he is habitually at the rear echelon; on the march he rides in, and is in charge of, a reconnaissance truck.

(2) *Administrative sergeant*.—The administrative sergeant is assistant to and performs the duties prescribed by the regimental adjutant; his principal duties relate to personnel records. In the field he is habitually at the rear echelon. On the march he rides in, and is in charge of, a reconnaissance truck.

(3) *Chauffeurs*.—Chauffeurs drive and perform first echelon maintenance for the reconnaissance trucks.

(4) *Clerks*.—Clerks perform the necessary clerical work for the section.

(5) *Messengers*.—Messengers perform duties as directed by the adjutant and supply officer.

SECTION XVIII

COMMUNICATION PLATOON

545. *Organization*.—The communication platoon consists of a platoon headquarters and two sections; message center section and radio and panel section.

546. *Employment*.—The communication platoon is employed in the field as the operating agency for the regimental communication system.

547. *Operation*.—*a*. The communication platoon habitually operates with the forward echelon, regimental headquarters.

functioning with the command post group. On the march within the command post group, the platoon marches in the order: **Message center section and radio and panel section.**

b. The sections of the platoon operate as indicated below:

(1) The message center section establishes and operates the regimental message center. It records all incoming and outgoing messages and determines the agency by which outgoing messages are transmitted. Assisted if necessary by the radio and panel section, it performs the necessary encoding and decoding; operates display panels and airplane pick-up equipment; receives signals and dropped messages from airplanes. (See pt. two, SOFM.)

(2) The radio and panel section establishes and operates the regimental radio net. It is capable of subdivision into three radio and panel sections (pack) and a radio and panel section (truck). The three pack sections may be detached to troops, squadrons, or such regimental agencies as directed, in which case this section operates display panels, airplane pick-up equipment, and receives signals and dropped messages from airplanes. The truck section ordinarily operates in the vicinity of the command post.

548. Duties of members.—a. Platoon headquarters.—(1) Communication officer.—(a) The communication officer commands and trains the platoon and conducts the technical training of communication personnel.

(b) In the field he establishes the regimental message center at or near the command post; is responsible for the establishment and maintenance of all communication, messenger, radio, and panel; trains the radio operators of the transportation and scout-car platoons and trains all messengers and buglers of the troop in the technique of messenger service. On the march he is mounted and rides at the head of the platoon.

(2) **Communication sergeant.—**The communication sergeant acts as assistant to the communication officer; performs the duties of the communication officer in his absence; and supervises the training and operation of the sections of the platoon. On the march he rides in the radio truck.

b. **Message center section.—(1) Message center sergeant.—**The message center sergeant is chief of the section. In the field he opens the message center in the location designated

by the communication officer and displays the command post and direction signs. On the march he rides at the head of the command post group. He sees that messages are delivered promptly and supervises the keeping of message center records.

(2) *Mail corporal.*—The mail corporal collects, sorts, and delivers the mail and assists the message center sergeant and the panel and code corporal. On the march he rides with the message center section.

(3) *Panel and code corporal.*—The panel and code corporal is panel chief. He encodes and decodes messages and trains personnel in the message center and radio squads in displaying panels. With other members of the message center he displays panels, handles pick-up equipment at the command post, and receives signals from airplanes. He recovers and delivers dropped messages to message center.

(4) *Clerks.*—The clerks keep the records under direction of the message center chief. On the march they ride with the message center section.

(5) *Messengers.*—The messengers deliver messages; in addition to the delivery of messages two of the messengers drive solo motorcycles; two other messengers have the additional duty of driving the motorcycles with side cars. The messengers assist in displaying panels.

c. Radio and panel sections.—(1) *Radio sergeants.*—(a) The senior radio sergeant commands the section, riding in the radio truck. In the field he establishes such radio communication as may be required at the command post; he dispatches radio and panel sections to detached troops or squadrons as directed.

(b) Each of the three remaining sergeants commands a radio pack section. In the field, unless otherwise directed, his place of duty is at the command post. When on detached duty he is responsible for radio and panel communication, for the proper loading of the pack animal, and for the condition and adjustment of his radio set. When radio communication is to be established he leads his squad off the road and commands: *OPEN STATION*, turning his horse over to the assistant operator while he supervises the opening of the station.

(2) *Chauffeur.*—The chauffeur drives the radio truck.

(3) *Drivers.*—The drivers drive and care for the pack horses in the radio squad.

(4) *Radio operators.*—(a) The No. 1 operator is responsible to the section leader for the condition and adjustment of his radio set. At the command *Open station*, he dismounts and, assisted by No. 2 and the assistant operator, unloads the radio set and places it in operation. He receives and transmits messages and maintains the station log.

(b) At the command *Open station*, the No. 2 operator dismounts and assists the No. 1 operator in unloading the radio set and placing it in operation. He is the relief operator. Normally he cranks the hand generator when the radio is transmitting. In closing station he reverses the above procedure.

(c) The No. 3, or assistant operator, when opening or closing station, holds the horses of the sergeant and the other two operators; he is relief crankman and a relief operator.

SECTION XIX

SCOUT-CAR PLATOON

549. Organization.—The scout-car platoon consists of 10 scout cars and 4 motorcycles. The platoon is normally divided into a small headquarters of 1 scout car, 1 motorcycle, and 3 sections of 3 scout cars with 1 motorcycle each. The tactical situation may necessitate a section of 2 or more scout cars.

550. Employment.—a. The scout-car platoon is the most mobile reconnaissance agency in the regiment. The platoon is characterized by fire power, road mobility, and long radius of action. Appropriate missions utilize these characteristics.

b. Scout cars are employed on distant missions, the time and space factors of which place them beyond the scope of horse units. They are used boldly when the situation demands; distance is seldom an obstacle.

551. Operation.—The scout-car platoon operates in accordance with the following general principles:

a. While the platoon may be assigned a mission, it normally operates by section.

b. The scout-car section is the basic tactical unit through which the scout-car platoon commander carries out his mission. At least one section is held in reserve unless the number of missions require the employment of all. The section is ordinarily commanded by an officer.

c. The platoon organization is flexible so that sections of 2 cars, 3 cars, or more are available for each mission; the nature of the mission determines the number of cars assigned the section.

552. Missions.—The primary mission of the scout-car platoon is reconnaissance. Other missions may include security, command, communication, and combat.

a. *Reconnaissance missions.*—The detailed preparation of plans and orders for scout-car reconnaissance is the function of the regimental staff, primarily the intelligence section (S-2). The execution of the reconnaissance is the task of the scout-car platoon. Reconnaissance missions are transmitted direct to the scout-car platoon commander. Upon receipt of a mission the platoon commander issues the necessary warning orders, estimates and studies the situation, decides on the number, size, and composition of sections required to accomplish the mission and designates same. Prior to starting, the platoon leader inspects and gives the section its orders which include the situation, mission, plans, route, alternate route, phase lines, and assembly points for control purposes. The scout-car platoon commander ordinarily remains at the command post or in close vicinity thereto. Sometimes he accompanies a section.

(1) *Reconnaissance by the scout-car section.*—(a) *Preparation.*—Upon receipt of the reconnaissance mission the section commander issues warning orders; estimates and studies the situation; plans his reconnaissance; causes speedometer readings, gas, oil, ammunition, and communication to be checked. Prior to starting, the section leader inspects his vehicles and issues necessary orders.

(b) *Advance by bounds.*

1. The normal advance of the section is by bounds. The leading car of the section does not advance from the cover of a bound until a careful reconnaissance of the next bound is made by observation. The leading car then advances at maximum speed. The remaining cars cover the advance of the leading car from the original position or follow it at a suitable distance prepared to support its movements by fire. The section commander habitually remains with the second car of the section.

2. The preliminary reconnaissance of the next bound must be as brief as possible to avoid undue delay in the advance of the section. It is best made by the car commander halting his car in the rear of a crest or other cover, in such a position that, standing, he may observe the next bound.
3. The distance between bounds varies with the situation and the terrain. On roads over flat country it may be as great as 2 miles. Moving across country, cars may be echeloned in the advance, terrain dictating the length of the bounds.
4. Various modifications of this method are possible and frequently advisable. The leading car may turn and back up to the crest where observation of the next point is feasible. In this position the car is able to use its maximum fire power and is prepared for a rapid withdrawal.
5. Dismounted reconnaissance may be necessary before moving to the next bound. In this case the car must be concealed during the reconnaissance; personnel remaining with it must be on the alert, observing in all directions, and the car located for a quick departure. This procedure is at times advisable in moving up to a village or town. Full advantage of houses, barns, or shrubbery should be taken to conceal the car.

(c) *Reconnaissance of a village.*

1. In reconnoitering a village suspected of containing hostile troops, it is best to approach the area from the rear or flank. A detailed reconnaissance with field glasses is made from a convenient observation point. This is followed by a vehicular reconnaissance around the outside of the village which will usually discover hostile forces if present and give more freedom of maneuver to the platoon if they are encountered. A more detailed reconnaissance through the streets of the village is then made.
2. In passing through a village, over a bridge, or through a defile, the passage of the leading element is covered by the remainder of the platoon or section from

a position on the near side with guns sited on probable hostile positions or the remainder of the platoon or section may follow at supporting distance.

(d) *Reconnaissance of column and camp.*

1. The reconnaissance of a hostile column on the march is best performed by observation from several successive observation positions on the flank of the column.
2. The reconnaissance of a hostile camp is made by successively approaching the area from several directions on the flanks and rear to secure observations. As stealth is essential, it may be necessary to perform the latter part of these approaches by small dismounted patrols operating within supporting distance of the concealed scout cars.

(e) *Ambush.*

1. Scout cars, like all wheeled vehicles, are susceptible to ambush. When the time element is paramount, there is no procedure other than a hasty reconnaissance of the location of the suspected ambush by observation. If no road block is visible, the leading car must rush the location, prepared to open fire instantly, and the other cars must be halted in position to observe and cover the advance by maneuver and supporting fire.
2. Time permitting, it is best to reconnoiter the suspected location of the ambush on foot, the dismounted personnel making the reconnaissance under the protection of the guns of one or more cars. If an ambush is located, it should be avoided unless the mission or road net requires its reduction.
3. If, after reconnaissance by observation, the leading car commander suspects an ambush and does not wish to risk the car in rushing it, he may conduct reconnaissance by fire on the suspected point before moving forward. Several bursts fired on the suspected location, if not replied to, may indicate that the road is clear. This method calls for expenditure of ammunition and risks giving information of the location of the car to the enemy.
4. If an ambush must be reduced, it is attacked by normal dismounted methods, preferably by fire from the

front and flanks. Guns may be dismounted from the cars, or, if the terrain permits, one car may move by a covered route to a flank or rear position and deliver surprise fire. To extricate a car caught in ambush, the remaining car or cars of the section maneuver and give it fire support, but do not otherwise close in and risk being ambushed in turn.

5. Every effort should be made to go around an obstacle, mission permitting, rather than to engage in a prolonged fire fight or risk an unfavorable outcome.

(f) *Reports.*—The section leader plots information and makes necessary reports to platoon or regimental headquarters.

(2) *Reconnaissance by scout-car platoon.*—It is exceptional for the scout-car platoon as a unit to conduct a reconnaissance; normally missions are executed by sections. However, if the platoon as a unit should execute a reconnaissance mission, the procedure is as prescribed for the section.

b. *Security missions.*—(1) *General.*—The performance of reconnaissance by scout-car elements in itself insures a high degree of security, since reconnaissance, security, and information are interdependent. Security means all-around protection from swift-moving air and ground units. Scout cars, due to their ability to operate and communicate rapidly at distances, coupled with a strong antimechanized and antiaircraft fire power, constitute potentially strong security elements.

(2) *Security by scout-car section.*—(a) When the situation warrants, scout-car sections are employed as mobile security detachments on the front, flanks, and rear of a command. Normally the sections operate directly under regimental control. At times, especially when operating close in, they may be attached to mounted security detachments; however, such use is exceptional.

(b) Sections may be given a special mission to furnish anti-mechanized protection to the regiment when the situation or time and space factors preclude the use of the caliber .50 machine-gun troop.

(c) Sections at all times are charged with promptly warning the regiment of the approach of hostile mechanization or aircraft.

c. Command and communication missions.—(1) *Command missions.*—Scout cars are of great value for cavalry command reconnaissance missions calling for speed and mobile fire power; use for this purpose is exceptional; however, on occasions, single cars may be used by the regimental commander and staff for liaison, reconnaissance, or inspections.

(2) *Communication missions.*—(a) Radio-equipped scout cars with their great road mobility are an especially valuable link in augmenting the regimental communication system.

(b) Scout-car sections, irrespective of assigned missions, will transmit information by radio, and not infrequently single cars will be used as a means of establishing liaison with widely separated regimental units or units with which the regiment is operating.

(c) Platoon and scout-car section commanders communicate with higher headquarters by radio, motorcycle, and scout car; the platoon and section commanders communicate with other scout cars by visual signal, motorcycle, and voice.

d. Combat missions.—(1) *General.*—Combat, though incidental, is at times necessary in the accomplishment of scout-car missions. The leaders of sections and individual cars must decide when combat is necessary. Sections and individual cars must never lose their freedom of maneuver by becoming too closely engaged. Leaders must be guided by the principal that the cars are intended essentially for reconnaissance and security purposes and not combat. There are, however, certain phases of combat where the characteristics of scout cars make them the only agency capable of carrying out a regimental mission; for example, the rapid seizure of distant objectives and delaying and harassing action.

(2) *Scout-car sections in delaying and harassing action.*—(a) In delaying action, the section occupies successive positions between the hostile force and its objective, necessitating the hostile column to deploy frequently for attack; one or more cars go into action on a forward position, opening fire at long range; one or more cars occupy a position in rear to cover the withdrawal of cars from the forward position. The above may be combined with surprise attacks from positions on the hostile flanks.

(b) In harassing action the sections annoy and wear down the hostile resistance by frequent surprise attacks from the enemy's front, flank, and rear.

(c) In both delaying and harassing action, scout cars are dispersed in width and depth but within supporting distance.

(d) In withdrawing, individual cars usually withdraw successively and mutually support one another.

553. Duties of members.—*a. Officers.*—(1) The senior is platoon commander. He commands and trains the scout-car platoon; he executes the tactical missions directed, and when ordered, details a section of cars to report to the regimental commander or to detached squadrons. He is responsible for the first echelon maintenance for motor vehicles of the platoon and the vehicular firing training of personnel charged with train defense of the transportation platoon. He cooperates with the communication officer in the training of radio operators and of the platoon messengers.

(2) The other scout-car officers are section commanders. They command and train their sections and execute the tactical missions directed. They are responsible for first echelon maintenance for motor vehicles in the section.

b. Sergeant.—He is the platoon sergeant, car commander, and in the absence of an officer, section leader.

c. Car commanders.—They ride in and command scout cars; they are responsible for first echelon maintenance of their cars; they should be trained drivers, gunners, and radio operators.

d. Drivers.—They drive cars, perform first echelon maintenance, and must be capable of replacing gunners or radio operators.

e. Gunners.—They are responsible for the care, cleaning, functioning, and firing of the guns of their respective cars; they must be capable of replacing drivers and radio operators.

f. Messengers.—Messengers drive and perform first echelon maintenance of motorcycles of the scout-car platoon; they must be skilled in courier service and combat intelligence.

g. Radio operators.—Radio operators ride in scout cars equipped with radio sets. They send and receive radio messages and keep required records. They are responsible for the care and operation of the radio equipment of the scout cars and must be capable of replacing drivers and gunners.

SECTION XX

TRANSPORTATION PLATOON

554. Organization.—The transportation platoon consists of cargo trucks, a maintenance (light repair) truck, and motorcycles. The platoon is essentially a cargo unit. For train defense some trucks are provided with caliber .30 light machine guns or caliber .50 machine guns.

555. Employment.—*a.* The platoon is employed as a regimental transportation agency, transporting regimental equipment essential to combat, rations, forage, gas, oil, and ammunition. It transports the band.

b. The employment of the cargo vehicles of the transportation platoon must be flexible. The trucks constitute a regimental pool to be assigned to troops, squadrons, or used by the regiment as a whole, as the situation demands. In practice, provided the situation permits, each troop is allotted a definite number of trucks for the transportation of supplies and equipment.

556. Operation.—*a.* The transportation platoon operates under the direction of the regimental supply officer (S-4).

b. For operation the cargo trucks are divided into two sections:

(1) *Baggage section.*—This section carries the baggage and equipment for each troop and regimental headquarters.

(2) *Supply section.*—This section transports the regimental class I reserve of grain, the reserve of gas and oil for the scout-car platoon and motorcycles, and the reserve ammunition for regimental headquarters, band, and headquarters troop. In the available cargo capacity there may be transported a portion of the field and grain ration. Wood, if carried, is transported in this section. Two trucks of this section transport the band.

c. On the march the transportation platoon usually marches separately. The baggage section may either accompany the column directly, move by bounds in rear of it, or remain at a location in rear. The supply section either accompanies the baggage section or operates independently in moving to and from supply points.

557. Duties of members.—*a. Transportation officer.*—The transportation officer commands and trains the personnel of the platoon. He acts in close cooperation with the regimental supply officer (S-4). In the field he releases trucks to units as directed.

He detaches trucks or sections to draw supplies or to accompany detached units. He is in charge of the mechanics and is responsible for second echelon maintenance of all motor vehicles in the troop. On the march he ordinarily rides in a motorcycle sidecar and marches the platoon by the route and at the rate prescribed. He is responsible for train defense.

b. Motor sergeant.—The motor sergeant is responsible to the transportation officer for second echelon maintenance of all motor equipment in the troop; he is in charge of the maintenance personnel; and he is stock and record clerk for the transportation and scout-car platoons. On the march he rides in the repair truck.

c. Motor maintenance sergeant.—The motor maintenance sergeant, as assistant to the motor sergeant, is in direct charge of the mechanics and rides in the repair truck.

d. Truckmaster.—The truckmaster is in direct charge of the personnel of the platoon, less maintenance; he usually commands the supply section of the platoon when it goes to the rear for supplies; and he rides in the sidecar of a motorcycle and assists the transportation officer in the maintenance of march discipline in the platoon.

e. Assistant truckmaster.—The assistant truckmaster assists the truckmaster, rides in the sidecar of a motorcycle, and usually commands a section when it accompanies a detached unit.

f. Chauffeurs.—Chauffeurs drive the cargo trucks. They are held responsible for knowing and observing the rules of traffic and convoy driving.

g. Mechanics.—Mechanics perform the necessary maintenance of all vehicles. One mechanic drives the repair truck; another rides in the repair truck. One mechanic rides in each of the two cargo trucks assigned to the band. Mechanics are armed with rifles for train defense.

h. Messengers.—Messengers drive the motorcycles with sidecars for the transportation officer, truckmaster, and assistant truckmaster, and are responsible for first echelon maintenance of these vehicles.

i. Radio operators.—Radio operators operate and maintain the radio sets of the platoon. They ride in the cargo trucks that are equipped with radio sets.

SECTION XXI

HEADQUARTERS TROOP

558. Organization.—The headquarters troop consists of regimental headquarters, troop headquarters, and 4 platoons; staff, communication, scout-car, and transportation.

559. Employment.—The headquarters troop is employed in the field as the basic regimental agency of command, staff, communication, and supply. The troop does not function as a unit. Its duties include establishing and maintaining a forward echelon for regimental headquarters; providing the means for rapid and distant reconnaissance; establishing communication; and insuring the delivery of rations, forage, gas, oil, ammunition, and other essential supplies.

560. Operation.—To facilitate operations and functioning on the march or in the field, the headquarters troop is divided into a forward and rear echelon.

a. The forward echelon is divided into three parts; scout-car group, commander's group, and command post group.

(1) The scout-car group consists of the scout-car platoon.

(2) The commander's group consists of those members of the regimental staff and of the headquarters troop who are necessary to keep the commander informed of the situation and to enable him to prepare, record, and transmit his orders.

(3) The command post group contains the personnel, matériel, and horses (less those in the commander's group) that are necessary to establish the command post and to maintain communication. During combat, it may be combined with the commander's group to form the command post.

b. The rear echelon contains the personnel, matériel, horses, and motor transportation required to perform the administrative and supply functions of the command. It is divided into a horse group and a motor group.

(1) The horse group includes the personnel of the rear echelon mounted on horses.

(2) The motor group consists of the transportation platoon, with the light wagons of the rifle and machine-gun troops when the wagons are trailed.

c. (1) The scout-car group moves as directed by the regimental commander.

(2) The commander's group marches at the head of the main body. It may march with the advance guard. The regimental commander may take all or a part of this group with him on reconnaissance.

(3) The command post group marches in rear of the commander's group, usually in the following order: Message center section, radio and panel section. Elements of the command post group, not required for functioning on the march, march with the horse group of the rear echelon or in a place or places in the column designated by the regimental commander.

(4) The horse group of the rear echelon marches at the rear of the combat echelons or as directed.

(5) The motor group, under the transportation officer, moves by the route and at the rate directed by the regimental supply officer.

d. The assignment of personnel to echelons and groups may be varied by the regimental commander to suit the terrain and the mission. The following table serves as a guide for such assignments. The table will change in conformity with future minor changes in organization, with absentees, and with local conditions, but it is inserted here as a workable example for the use of regimental and headquarters troop commanders in the average situation.

561. Duties of the regimental staff.—a. The regimental staff consists of the following:

Rank	Title	Abbreviation
Lieutenant colonel.....	Executive.....	R-ex.
Major.....	Plans and training.....	S-3.
Captain.....	Adjutant.....	S-1.
Captain.....	Intelligence.....	S-2.
Captain.....	Supply.....	S-4.

Assignment of personnel to echelons and groups

Personnel	Forward echelon			Rear echelon		Remarks
	Scout car group	Com-mander's group (Colonel) (P & T officer) (intelligence officer)	Com-mand post group (Executive officer)	Horse group	Motor group	
OFFICERS						
	Regimental officers:					
	Troop commander		1	1		Commands troop. In charge of communication. 1 commands platoon and 1 section; 3 command sections.
	Communication officer					Commands transportation platoon. Rides in motorcycle sidecar.
	Scout-car officers	4				
	Transportation officer				1	
ENLISTED MEN						
	Troop headquarters:					
	First sergeant			1	1	Rides on kitchen truck. ¹
	Mess sergeant					
	Stable sergeant			1	1	Rides on troop cargo truck, transportation platoon. ²
	Supply sergeant					Do. ²
	Armorer				1	
	Buglers			2		Drives kitchen truck. ³
	Chauffeur				1	

Clerk.....	1	4
Cooks.....		
Horseshoers.....	2	
Messengers.....	2	
Saddler.....	1	
Operations and intelligence section:		
Sergeant major.....	1	
Intelligence sergeant.....	1	
Plans and training sergeant.....	1	
Sergeant bugler.....	1	
Clerks.....	2	
Messengers.....	6	
Administrative and supply section:		
Regimental supply sergeant.....		1
Administrative sergeant.....		1
Chauffeurs.....		2
Clerks.....		5
Messengers.....		2
Communication platoon headquarters: Communication sergeant.....		1
Message center section:		
Chief of section.....		1
Mail corporal.....		1
Panel and code corporal.....		1
Clerks.....		2
Messengers.....		6
Radio and panel section.....		
Sergeants.....		4
Chauffeur.....		1
Drivers.....		3
Operators, radio.....		8
Operators, radio, assistant.....		4

¹ Mounted and ride in horse group until motor equipment is available.

² Charged with care and operation of a caliber .50 M G (train defense).

³ Mounted and drives a pack horse in the horse group until motor equipment is available.

⁴ Drives administrative pack horse until motor equipment is available.

⁵ Mounted until motor equipment is available.

⁶ Mounted and drives a radio pack horse until motor equipment is available.

3 ride on kitchen trucks; ¹ 1 rides on troop cargo truck, transportation platoon.³

(4).

(5).

3 are horseholders for colonel, plans and training officer, and intelligence officer.

Rides in 2 reconnaissance trucks.

(6).

(7).

(8).

(9).

(10).

Rides on radio truck.¹

4 drive motorcycles.

1 radio squad rides on radio truck; may accompany commander's group on the march.

1 rides in radio truck.¹

Drives radio truck.¹

2 ride in radio truck.¹

1 rides in radio truck.¹

Assignment of personnel to echelons and groups—Continued

Personnel	Forward echelon			Rear echelon		Remarks
	Com- mand- er's group	Com- mand post group	Horse group	Motor group		
	Scout car group	(Colonel) (P & T officer) (intelli- gence officer)	(Execu- tive officer)	(Adju- tant) (supply officer)		
Scout-car platoon.....						1 section may be attached to commander's group. Commands 1 section.
Sergeant.....	1					
Car commanders.....	5					
Drivers.....	10					Drive motorcycles.
Gunners.....	10					
Messengers.....	4					
Operators, radio.....	10					Rides on repair truck. Do. Rides on motorcycle sidecar. Do. (3 bandsmen drive 3 trucks in transportation platoon.) 1 drives and 1 rides in repair truck; 3 ride cargo trucks in transportation platoon. Drive motorcycles. Ride in 2 radio-equipped cargo trucks, transportation platoon.
Transportation platoon:						
Motor (tech.) sergeant.....					1	
Motor maintenance sergeant.....					1	
Truckmaster.....					1	
Assistant truckmaster.....					1	
Chauffeurs.....					27	
Mechanics.....					5	
Messengers.....					3	
Operators, radio.....					2	
Totals	44	12	33	11	61	Troop 161.

b. The duties to be performed by the regimental staff are prescribed in part one, chapter 1, section I, SOFM.

562. Duties of officers.—a. Troop commander.—(1) The troop commander is responsible for the administration, supply, and training of the headquarters troop, except that the operations and intelligence section and the administrative and supply section are trained under the appropriate regimental staff officer.

(2) On the march he rides at the head of the horse portion of the troop (less commander's group).

(3) When combat is imminent, he reports with the other subordinate commanders to the regimental commander.

(4) When the field order is issued, he insures that the provisions of paragraphs four and five and any other part of the order affecting any part of the troop will reach the individuals or units concerned.

(5) During combat, he establishes the command post, remains there, or goes wherever his presence may be necessary to supervise or assist the operation of any part of his troop.

b. Communication officer, scout-car officers, and transportation officer.—The duties of these officers are as prescribed in paragraphs 548, 553, and 557.

INDEX

Action:	Paragraph	Page
On night attack	381	202
On night march	380	202
When surprised	404	209
Advance:		
Guard	425, 437	218, 225
Rifle	342	161
Under fire	61	27
Advanced gun drill:		
Machine gun	169-191	84-100
37-mm gun	244-251	118-125
Aim	345	162
Alignments	27, 315	16, 152
Ammunition	449, 458, 478, 487, 496, 517, 539	229, 231, 250, 251, 256, 262, 268
Animals, conservation of	411	211
Arm and hand signals	18	6
Armored car troop	308	150
Assemble:		
Machine-gun:		
Platoon	221	110
Section	205	104
Squad	149	68
Troop	269	131
Platoon leaders	122	55
Rifle:		
Squad	51	23
Troop	129	58
Assembly	298	144
Of patrols	395	205
At ease	29	16
Attack	53, 124, 297, 434, 435, 462, 466, 467, 468, 470	23, 56, 144, 221, 222, 232, 234, 236, 238, 246
Base	5, 6	2
Bivouacs	406	210
Brigade and division	306-308	149-150
Brigade review, mounted and dismounted	359	175
Caliber .50 (HB) machine-gun:		
Platoon	529-532	265-266
Section	525-528	264-265

INDEX

	Paragraph	Page
Caliber .50 (H.B.) machine gun—Continued.		
Squad.....	519-524	263-264
Troop.....	533-540	266-268
Caliber .30 (heavy) machine-gun:		
Platoon.....	489-497	252-257
Section.....	480-488	250-252
Squad.....	471-479	247-250
Troop.....	510-518	259-262
Carry gun equipment by hand.....	171, 246	87, 119
Cease firing.....	179, 251, 331, 348 93, 125, 158, 162	
Ceremonies:		
Formation for.....	288	137
General.....	349	162
Change direction.....	8, 43, 199, 213, 318, 319 {	3, 21, 102, 107, 154
Change formation.....	77	36
Change numbers and duties.....	160, 236	74, 113
Charge.....	54, 79	23, 36
Clear gun.....	168	84
Close order, intervals and distances.....	4	2
Combined attack of rifle troop.....	466	234
Command.....	414	212
Commands.....	312	151
Kinds.....	12	5
Means of transmission.....	11	4
Method of giving.....	14	5
Timing.....	13	5
To revoke.....	15	5
Commence firing.....	178, 250	93, 124
Communication platoon.....	272-273, 545-548	132, 270-272
Composition of squad for gun drill.....	153, 229	71, 111
Connecting group.....	430	220
Control:		
Machine-gun:		
Platoon.....	209	105
Section.....	193	100
Squad.....	132	58
Correct stoppages.....	189	98
Covering detachment.....	431, 438	220, 226
Decorations, presentation of.....	360	176
Defense.....	423, 436, 463, 469 {	217, 224, 232, 242
Delaying action.....	470	246
Determine clearance of mask.....	188	98
Direction and location.....	410	211
Direction, to change.....	8	3
Dismiss:		
Regiment.....	305	149

INDEX

Dismiss—Continued.

	Paragraph	Page
Machine-gun:		
Section	196	101
Troop	261	129
Rifle:		
Platoon	83	37
Squad	28	16
Squadron	299	146
Unit	332	158
Dismount	138, 339	64, 161
Carriage	239	115
Gun	165, 173, 241	82, 89, 117
Rifle squad	26	15
To fight on foot	126	57
Tripod	163	79
Dismounted:		
Attack	422, 435, 468	216, 222, 238
Drill	309-332	150-158
Disperse by squads	73, 110	35, 46
Drill, general principles of	1-10	1-4
Drill unit	310	150
Duties, members of:		
Communication platoon	548	271
Scout-car platoon	553	279
Staff platoon	544	269
Transportation platoon	557	280
Duties of regimental staff	561	283
Elementary gun drill:		
Machine gun	152-168	70-84
37-mm gun	228-243	111-118
Employment:		
Caliber .50 (HB) machine-gun:		
Platoon	530	265
Section	526	265
Squad	520	263
Troop	534	266
Caliber .30 (heavy) machine-gun:		
Platoon	490	252
Section	481	250
Squad	472	247
Troop	511	260
Communication platoon	546	270
Headquarters troop	559	282
Light machine-gun:		
Platoon	452	230
Squad	443	228
Rifle troop	461	232
Scout-car platoon	550	273

INDEX

Employment—Continued.		Paragraph	Page
Staff platoon.....		542	269
37-mm gun:			
Section.....		505	258
Squad.....		499	257
Transportation platoon.....		555	280
Encounter with inhabitants.....		403	209
Equipment:			
Required, elementary gun drill.....	154, 230		71, 112
Responsibility for, and procedure.....	245		119
To carry by hand.....	171, 246		87, 119
To examine.....	161		74
To lay out.....	156, 232		72, 112
To secure.....	155, 231		71, 112
Escort:			
Funeral.....	367		186
Of honor.....	366		184
To the standard.....	365		181
Escorts, purpose.....	364		181
Estimate of the situation.....	416		213
Examine gun and equipment.....	161, 237		74, 114
Execution of movements.....	23, 66, 102, 116, 259, 292, 303		14, 30, 43, 50, 127, 141, 148
Extend:			
In depth.....	44, 71, 107, 123, 147, 204, 220, 268, 280, 296		21, 33, 46, 55, 68, 103, 109, 130, 136, 143
Laterally.....	72, 108, 123, 146, 180, 203, 219, 267, 296		35, 46, 55, 68, 93, 103, 109, 130, 143
Fall out.....	28, 332		16, 158
Fight on foot.....	55, 80, 93, 111, 150, 206, 222, 226, 254, 340		23, 36, 41, 46, 69, 104, 110, 111, 125, 161
Fire.....	346		162
At will.....	329		158
By volley.....	328		157
Flank patrol or flank guard.....	427, 439		219, 226
Follow corporal.....	34		17
Form:			
As foragers.....	47, 75		21, 35
Brigade for mounted and dismounted ceremonies.....	355		169
Column.....	200, 214, 264		102, 107, 129
Column of—			
Cars or sections.....	277		134
Fours.....	35, 38, 69, 91, 106, 118		18, 19, 32, 40, 45, 53
Fours from line.....	294		143
Platoons.....	120, 265		54, 129

INDEX

Form—Continued.

Form—Continued.	Paragraph	Page
Column of—Continued.		
Twos or troopers	36, 69, 90, 106, 118, 141, 142	19, 32, 40, 45, 53, 65
Flock	46, 148	21, 68
For elementary gun drill	233	112
Gun squad	157	73
Horse cavalry for mounted and dismounted ceremonies...	350-352	164-167
Light machine-gun:		
Platoon	104	44
Squad	88	40
Line	37, 39, 70, 105, 119, 198, 215, 262, 278	19, 20, 32, 45, 53, 102, 108, 129, 134
Line of—		
Half squad columns	45, 92	21, 40
Platoon columns	121	55
Section columns	279	136
Machine-gun:		
Platoon	211	106
Section	195	100
Squad	137	63
Troop	260	128
Regiment	304	148
Rifle:		
Platoon	68	31
Squad	24	14
Troop	117	50
Scout-car platoon	276	134
Squadron	293	142
For mounted and dismounted ceremonies	354	168
Transportation platoon	283	136
Formations	3	1
Dismounted drill	311	150
Headquarters troop	287, 288	137
Light machine-gun:		
Platoon	100	42
Squad	85	38
Machine-gun:		
Platoon	210	105
Section	194	100
Squad	134	61
Troop	258	126
Methods of assuming line and column	7	2
Mounted patrols	398	206
Regimental	302	147
Rifle:		
Platoon	64	29
Squad	21	12
Troop	115	49
Scout-car platoon	275	138

INDEX

Formations—Continued.	Paragraph	Page
Squadron.....	291	140
Staff platoon.....	273	132
37-mm gun:		
Section.....	253	125
Squad.....	225	111
Transportation platoon.....	282	136
Funeral escort.....	267	130
Gaits.....	9	3
Go into action.....	176, 248	91, 122
Go out of action.....	96, 151, 207, 223, 227, 255	42, 70, 104, 110, 111, 125
Guide:		
Light machine-gun platoon.....	101	43
Rifle:		
Platoon.....	65	30
Squad.....	22	13
Halt.....	31	17
Headquarters:		
Light machine-gun platoon.....	99	42
Machine-gun troop.....	257	125
Regimental.....	301	146
Rifle:		
Platoon.....	63	28
Troop.....	114	47
Squadron.....	290	139
Headquarters troop.....	285-288, 558-561	137-139, 282- 287
Inspection.....	370	195
Headquarters troops, brigade and division.....	307	149
Hour of starting, patrols.....	388	204
Initial firing positions.....	446, 455, 475, 484, 493, 502, 508, 514, 523, 537	228, 230, 247 250, 252, 258 259, 260, 263, 267
Inspect gun.....	190	98
Inspection:		
Headquarters troop.....	370	195
Machine-gun troop.....	369	193
Regimental.....	371	197
Rifle troop.....	368	188
Squadron.....	372	198
Instruction, mounted.....	133	60
With rifle.....	337-348	161-162
Intervals and distances in close order.....	4	2
Lay gun.....	175	89
Lay off an angle.....	184	96

INDEX

	Paragraph	Page
Lay out equipment.....	156, 232	72, 112
Lead out.....	341	161
Leader.....	6	2
Leave horses immobile.....	57, 81, 95, 112, 127	25, 37, 42, 47, 57
Led horses.....	413, 448, 456, 477, 486, 495, 516, 538	212, 229, 230, 250, 251, 256, 262, 268
Lie down.....	60	25
Light machine-gun:		
Platoon.....	98-112, 451-459	42-47, 229-231
Squad.....	84-97, 442-450	38-42, 228-229
Link in couples.....	56, 94, 140	24, 41, 65
Load.....	325, 344	156, 162
Load and half load gun.....	166	83
Load gun.....	242	117
Machine-gun:		
Platoon.....	208-223	105-111
Section.....	192-207	100-105
Squad.....	130-151	58-70
Troop.....	256-269	125-132
Inspection.....	369	193
Maintain supplies.....	191	99
March outposts.....	428	219
March:		
Backward.....	32	17
Line to rear.....	263	129
To a flank.....	49, 144	20, 66
To front.....	30	17
To rear.....	50, 76, 109, 125, 145, 201, 217	22, 35, 46, 56, 68, 103, 108
Measure:		
An angle.....	183	95
Quadrant elevation.....	187	97
Messages.....	389, 405, 418	204, 209, 213
Missions.....	444, 453, 473, 482, 491, 500, 506, 512, 521, 535, 552	228, 230, 247, 250, 252, 257, 259, 260, 263, 267, 274
Of patrols.....	385	203
Mount.....	25, 58, 138, 338	15, 25, 64, 161
Carriage.....	238	115
Gun.....	164, 240, 247	79, 116, 121
In low position.....	172	87
On sloping ground.....	174	89
Rifle platoon.....	82	37
Tripod.....	162	77

INDEX

Mounted:	Paragraph	Page
Attack.....	421, 434, 467	215, 221, 236
Ground scouts.....	379	201
Scouting.....	373-381	199-202
Move toward a flank.....	295	143
Movement.....	409	211
Movements:		
Execution of.....	23, 66, 102, 116, 259, 292, 303	14, 30, 43, 50, 127, 141, 148
Explanation of.....	2, 313	1, 151
Formations and.....	253, 273, 282, 287	125, 132, 136, 137
Pace in dismounted.....	10	4
Patrol.....	399, 400	207
Oblique.....	320	154
By heads of columns.....	202, 218	103, 108
By troopers.....	33, 143	17, 66
Operation:		
Communication platoon.....	547	270
Headquarters troop.....	560	282
Scout-car platoon.....	551	273
Staff platoon.....	543	269
Transportation platoon.....	556	280
Orders.....	417	213
Patrol leaders'.....	396	205
To patrols.....	393	205
Organization:		
Caliber .50 (HB) machine-gun:		
Platoon.....	529	265
Section.....	525	264
Squad.....	519	263
Troop.....	533	266
Caliber .30 (heavy) machine-gun:		
Platoon.....	489	252
Section.....	480	250
Squad.....	471	247
Troop.....	510	259
Communication platoon.....	272, 545	132, 270
Headquarters troop.....	285, 558	137, 282
Light machine-gun:		
Platoon.....	98, 451	42, 229
Squad.....	84, 442	38, 228
Machine-gun:		
Platoon.....	208	105
Section.....	192	100
Squad.....	130	58
Troop.....	256	125
Regiment.....	300	146

INDEX

Organization—Continued.

Rifle:	Paragraph	Page
Platoon.....	62, 432	28, 220
Squad.....	19, 419	11, 214
Troop.....	113, 460	47, 231
Scout-car platoon.....	274, 549	133, 273
Staff platoon.....	272, 541	132, 269
37-mm gun:		
Section.....	252, 504	125, 258
Squad.....	224, 498	111, 257
Combat.....	419	214
Squadron.....	289	139
Transportation platoon.....	281, 554	136, 280
Outguards.....	429	219
Outposts.....	441	227
Pace in dismounted movements.....	10	4
Pack horses.....	131	58
Parades, purpose of.....	361	178
Park platoon, transportation.....	284	136
Passage of outpost line.....	397	206
Patrol:		
Definition.....	383	202
Flank.....	427	219
Leaders' orders.....	396	205
Squad.....	424	218
Patrols.....	382-406	202-210
Personal reconnaissance.....	415	212
Pitch shelter tents.....	333, 335	159, 160
Point of advance guard.....	425	218
Point of rear guard.....	426	219
Positions:		
Change of.....	447, 457, 476, 485, 494, 515	229, 231, 249, 251, 255, 262
Selection of.....	454	
Post gun squad.....	158, 234	73, 113
Present command, mounted and dismounted ceremonies.....	351, 353	166, 168
Presentation of decoration.....	360	176
Purpose and kinds of signals.....	16	6
Purpose and scope:		
Advanced gun drill:		
Machine gun.....	169	84
37-mm gun.....	244	112
Drill.....	1	1
Dismounted drill.....	309	150
Elementary gun drill:		
Machine gun.....	152	70
37-mm gun.....	228	111
Put guns in packs.....	97	42

INDEX

	Paragraph	Page
Put on quadrant angle.....	186	97
Put out zero and aiming stakes.....	185	96
Rally.....	52, 78, 128	23, 36, 58
Rear guard.....	426, 440	219, 226
Reconnaissance:		
Personal.....	415, 465	212, 233
Patrol.....	401, 402	208, 209
Scouts.....	378	201
Reconnoiter.....	377	201
Regiment.....	300-305	146-149
Regimental:		
Headquarters.....	301	146
Inspection.....	371	197
Parade.....	362	178
Review.....	357	170
Staff, duties of.....	561	283
Render honors.....	351, 353	166, 168
Responsibility for equipment.....	245	119
Return rifle.....	343	162
Reviews, general.....	356	169
Rifle:		
Platoon.....	62-83, 432-441	28-37, 220-227
Squad.....	19-61, 419-431	11-27, 214-220
Troop.....	113-129, 460-470	47-58, 231-247
Inspection.....	368	188
Route order.....	29, 139, 216, 266	16, 65, 108, 130
Routes of patrols.....	387	203
Saddle, harness, and pack.....	86, 135	39, 62
Scout-car platoon.....	274-280, 549-553	133-136, 273, 280
Scout movement by day and night.....	375, 376	199, 200
Scouts:		
Mounted ground.....	379	201
On night attack.....	381	202
On night march.....	380	202
Reconnaissance.....	378	201
To send out.....	74	35
Search.....	181	95
Secure equipment.....	155, 231	71, 112
Security:		
Detachments.....	408	211
Measures.....	464	232
Send out scouts.....	74	35
Set the sight.....	327	157
Shelter tent pitching.....	333-336	159-161
Signals:		
Arm and hand.....	18	6

INDEX

Signals—Continued.	Paragraph	Page
Purpose of.....	16	6
Whistle.....	17	6
Squad combat organization.....	419	214
Squad leader, rifle squad.....	20	11
Squadron.....	289-299	139-146
Inspection.....	372	198
Parade, mounted and dismounted.....	363	181
Review, mounted and dismounted.....	358	175
Stack arms.....	323	155
Staff platoon.....	270-271, 541-544	132, 269-270
Stand clear of gun or equipment.....	159, 235	74, 113
Stand to horse.....	337	161
Strike double shelter tents.....	336	161
Strike shelter tents.....	334	160
Suspend firing.....	330, 347	158, 162
Tactical employment, rifle platoon and squad.....	420, 433	215, 220
Take:		
Arms.....	324	156
Distances.....	322	155
Gun out of action.....	177, 249	91, 123
Interval.....	321	155
Kneeling position.....	59	25
Targets.....	445, 474, 483, 492, 501, 507, 513, 522, 536	228, 247, 250, 252, 257, 259, 260, 263, 267
Terrain, use of.....	412	211
37-mm gun:		
Section.....	252-255, 504-509	125, 258-259
Squad.....	224-227, 498-503	111, 257-258
Training of personnel.....	286	137
Training rules.....	170	85
Transportation platoon.....	281-284, 554-557	136, 137, 280, 281
Traverse.....	180	93
Tripod, to mount and dismount.....	162, 163	77, 79
Troop headquarters.....	257	125
Unload.....	326	157
Gun.....	167, 243	84, 118
Unpack, unharness, and unsaddle.....	87, 136	40, 63
Warning orders.....	392	204
Wheel by fours.....	40, 41, 316, 317	20, 153
Whistle signals.....	17	6
Withdrawal from action.....	450, 479, 488, 497, 518, 540	229, 250, 252, 257, 262, 268
Zero dial.....	182	95



173
WAR DEPARTMENT

CAVALRY FIELD MANUAL



Volume II

MECHANIZED CAVALRY



CAVALRY FIELD MANUAL



Volume II MECHANIZED CAVALRY

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Chief of Cavalry



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BY ORDER OF THE SECRETARY OF WAR:

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Chief of Staff.

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E. T. CONLEY,
Major General,
The Adjutant General.

TABLE OF CONTENTS

	Paragraphs	Pages
CHAPTER 1. Individual instruction.		
Section I. General.....	1-3	1-2
II. Driving and care of vehicle.....	4-8	2-5
III. The motorcyclist.....	9-10	5-7
IV. Special instructions for drivers and occupants.....	11-12	7-8
CHAPTER 2. Drill.		
Section I. General.....	13-15	9-11
II. Armored car troop.....	16-24	11-21
III. Combat car squadron.....	25-32	21-57
IV. Machine-gun troop.....	33-40	57-72
V. Mortar platoon.....	41-46	72-82
VI. Headquarters and service troops.....	47-48	82-86
VII. Regiment and brigade.....	49	86
CHAPTER 3. Ceremonies and inspections.		
Section I. General.....	50-54	87
II. Reviews.....	55-58	87-89
III. Inspections.....	59-63	89-90
IV. Escorts.....	64-65	90-91
CHAPTER 4. Combat training of small units.		
Section I. General.....	66-73	92-94
II. The armored car.....	74-79	94-97
III. Armored car platoon.....	80-82	97-102
IV. Armored car troop.....	83-86	102-106
V. Combat car units.....	87-93	106-113
VI. Machine-gun squad and section.....	94-98	113-114
VII. Machine-gun platoon.....	99-106	114-122
VIII. Machine-gun troop.....	107-112	122-123
IX. Mortar platoon.....	113-122	123-129
X. Communication platoon.....	123-128	129-149
XI. Service troop.....	129-132	149-152
Index.....		153-156

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VOLUME II

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CHAPTER 1

INDIVIDUAL INSTRUCTION

SECTION I

GENERAL

1. **Purpose of instruction.**—*a.* The purpose of instruction with motor driven vehicles is to train individual soldiers of mechanized organizations in the care and operation of the vehicles for combat.

b. As the horse is the basic element of horse cavalry, so the motor vehicle is the basic element of mechanized cavalry. Upon the condition of its motor vehicles depends the successful accomplishment of its mission. All rules and practices necessary to correct handling of motor vehicles under both normal and adverse conditions must be learned and followed in detail by all men of mechanized organizations.

2. **Concurrent instruction.**—The training of the soldier in driver's maintenance and in operation of motor vehicles is carried on concurrently. A good driver is one who not only handles his vehicle with ease, sureness, and precision but one who knows how to inspect and lubricate it, and perform the other essentials

of 1st echelon maintenance. Accordingly, to enable the recruit to become a good driver, he is carefully instructed in both the operation and care of motor vehicles.

3. Scope of instruction.—All men are trained as drivers of conventional type vehicles. Selected men are given further training in the operation of special type vehicles. All men so transported, except Medical Department personnel, must be further trained in the use of the pistol, machine gun and sub-machine gun, both mounted and dismounted, and in the fundamental principles of dismounted combat. Cavalry mechanized and motorized units cannot afford to carry any personnel, except Medical Department, who are not trained in the use of weapons and dismounted combat. For instruction in driving, the recruit is mounted on a light, wheeled vehicle with standard gear shift. After he has mastered the operation of this type vehicle, he is given instruction in the operation of multiwheeled, multiaxled vehicles with more complex transmissions, including cross-country driving with four-wheel drive vehicles. Immediately upon the completion of the recruit period, instruction in the operation and care of track-laying vehicles is given all personnel of organizations so equipped. Motorcycle instruction is given selected men. Too much stress cannot be paid on the desirability of instructing the recruit in the care of vehicles at the same time he is being instructed in their operation. The new driver who learns the mechanism of his vehicle realizes the ill effects of bad driving. Men who know their vehicles make good drivers.

SECTION II

DRIVING AND CARE OF VEHICLE

4. Responsibility of driver.—*a.* Each vehicle has an assigned driver. He is responsible for operating and maintaining his vehicle to assure its operation at maximum efficiency. The length of life and the amount of service rendered by a motor vehicle are largely dependent on the driver. He should be able to recognize immediately any unusual noise or abnormal condition in his vehicle. It is an established fact in motor organizations that those vehicles giving the most reliable service are those to which drivers are permanently assigned. For this reason commanders should be deliberate in changing assignments once made.

b. The driver's duties are exacting and definitely fixed. He must know what to do and what not to do, both in the handling and the upkeep of the vehicle. The scope of the driver's responsibilities for maintenance includes the correct driving, the cleaning and lubrication of the vehicle (with exception of the generator, magneto, and distributor), and the tightening of loose parts. He maintains in proper condition the radiator, storage battery terminals, and tires. Any work on the interior of the engine, other than the draining and filling of the crankcase, is performed by mechanics. The driver is taught and required to fulfill to the letter the requirements of the lubrication chart furnished with all vehicles. Daily inspections are important in order to locate deficiencies. Deficiencies which are beyond the scope of his activities are promptly reported to his car commander or immediate superior.

5. Driving instruction.—Driving instruction includes the following for all types of vehicles :

- a. Preliminary inspection of vehicle for serviceability.
- b. Shifting gears.
- c. Manipulation of clutch.
- d. Steering.
- e. Turning.
- f. Backing.
- g. Use of brakes.
- h. Starting and stopping.
- i. Rules of the road.
- j. Driving on highways.
- k. Marching.
- l. Cross-country driving.
- m. Night driving with and without lights.
- n. Examination of the driver.

6. The track vehicle.—Driving the track vehicle presents such different problems from those of the wheel vehicle that such training should not commence until the student is not only thoroughly competent in driving the wheel type but also has demonstrated handling the controls with quickness, coolness, and smoothness. This is necessary because of the different types of controls and also on account of the potential destructive power of the vehicle itself. The lightest and slowest type of vehicle available should be used at the beginning and the stu-

dent should become expert with it before passing to heavier or faster vehicles.

a. Due to the fact that the track controls vary in type, the student should be given instruction with the vehicle standing before being allowed to handle the vehicle in motion. Instructions with the vehicle standing at a halt should be given in the following order and the student should be proficient in each subject before the next one is taken up.

(1) Signals.

(2) Controls; use of each and drill in their application, doors open.

(3) Practice as above with doors closed.

b. When the student has become proficient at driving with the vehicle standing, he then takes up actual driving in the steps given below, first with the doors open and then with the doors closed. The student at the controls, with the instructor seated at his side, begins actual driving as follows:

(1) In low gear, for short distances, and over relatively smooth ground free from obstacles.

(2) With several obstacles to negotiate.

NOTE.—The above two steps should be carried out with the doors closed. Care must be taken that two vehicles do not operate within 100 yards of each other at this particular stage.

(3) The student then drives short courses of his own.

(4) Second and higher gears are introduced in the manner prescribed for low gear.

(5) The student alone then drives over a staked out course. This course should be considered as a proficiency test.

7. Cross-country driving.—*a.* After student drivers have demonstrated their ability to drive motor vehicles on good roads with deftness and precision and have further shown good judgment in the maneuvering of their vehicles in traffic, instruction in cross-country driving is begun. Development of drivers who can maneuver motor vehicles across country and reach a definite objective is the desired goal.

b. Cross-country wheeled vehicles are usually provided with high and low gear ranges, center differential locking devices, and four-wheel drive traction. These should be explained thoroughly both in principle and operation and then demonstrated before the driver attempts their use.

c. The first principle of cross-country driving with wheeled vehicles is that obstacles are to be avoided. It is only when an obstacle cannot be avoided that it is negotiated. The best cross-country driver is not the one who reaches his objective first, but the first driver who reaches his objective with an undamaged vehicle ready to continue its march. The student sits beside an experienced cross-country driver and is shown the practical applications of the devices provided for negotiating cross-country terrain. He is shown the proper use and application of the traction afforded by four-wheel drive vehicles. He is shown how and when, by use of the center differential lock, equal tractive force is applied to each wheel. He is shown how to ease his vehicle in and out of ditches, over unavoidable obstacles, and up or down difficult grades by use of his four-wheel drive and high and low gear ranges. The training of drivers is not complete until each has demonstrated his ability to operate his vehicle with a sureness and precision across country approximating that possible on improved roads.

8. **Night driving.**—Thorough instruction in night driving, with and without lights, is given each driver. As much driving of this type will be required in the field, it is important that this part of the driver's training is not neglected. Men differ greatly in their natural ability to see and drive at night without lights. Tests in night driving without lights should be given as soon as student drivers become reasonably proficient to insure that only men who are physically qualified are given permanent assignment as drivers.

SECTION III

THE MOTORCYCLIST

9. **Instruction.**—Instruction in riding the motorcycle is divided into two parts, dismounted and mounted. Where possible, the soldier should be able to ride a bicycle before receiving instruction on the motorcycle.

a. **Dismounted.**—This instruction may be given indoors, in the shop, or at the motor park. The student is taught the nomenclature and location of the principal parts of his vehicle. As he becomes thoroughly familiar with these he is taught the

cleaning, care, adjustments, and minor repairs that he will be required to make in the proper maintenance of his vehicle. This instruction will also include a brief discussion of the more serious mechanical difficulties that may arise, so that the student may recognize them and make an intelligent report in case of a breakdown on the road.

b. Mounted.—(1) This phase of instruction should not be started until the soldier has become proficient in the dismounted phase. Only careful and experienced drivers should be used as instructors. The early instruction should take place in a large, open, level area, preferably sodded, where the ground is firm and smooth but not hard enough to injure the soldier or his vehicle in case of a fall. In order to prevent accidents the instruction should proceed slowly under close supervision.

(2) With the machine at rest on the stand the student mounts and familiarizes himself with the controls, first with the engine at rest and then with the engine running. Next he is shown how to maneuver the motorcycle by pushing it; the early instruction should include much of this as it gives the man the feel of the machine and increases his confidence when he starts it under power. The next step is to start the engine and, in low gear, move a few feet in a straight line. As confidence is gained the distance moved is increased and later the gears are changed. When the man has become proficient on the drill field he should be taken on the road and over difficult ground.

10. Motorcycle maintenance.—The motorcyclist is responsible for the proper maintenance of his vehicle and makes the necessary adjustments and minor repairs as outlined below. Any other work on his machine is performed by mechanics.

a. Daily.—Each day upon taking the vehicle out and upon returning it to the park he verifies and corrects when necessary—

- (1) Brake adjustments.
- (2) Horn.
- (3) Lights.
- (4) Tire inflation.
- (5) Oil supply.
- (6) Gasoline supply.

b. Weekly.—Once a week he goes over his vehicle thoroughly and performs the following maintenance:

(1) Tightens hub nuts, spoke nipples, lamp brackets, engine and transmission bolts, and leakage to transmission, carburetor, distributor, and brushes.

(2) Greases all fittings.

(3) Adds distilled water and tightens cables in battery.

(4) Adjusts shackle and lubricates chain.

(5) Washes and polishes.

c. Monthly, or according to mileage.—Once a month, or according to the mileage performed by the vehicle, he drains and refills the engine crankcase and transmission with fresh lubricants.

SECTION IV

SPECIAL INSTRUCTIONS FOR DRIVERS AND OCCUPANTS

11. Car commander and driver.—The relations of the driver of a motor vehicle and his car commander or section leader are analogous to those of the mounted trooper and his squad leader. The car commander or section leader gives his instructions or signals, which are duly executed by the driver. The car commander directs the loading and disposition of cargo and passengers.

12. Occupants.—The occupants of military motor vehicles are considered in formation and do not leave the vehicle without proper authority. No passenger rides on the left of the driver in the driver's seat nor does any passenger occupy any part of the vehicle so as to obstruct the view of the driver. In passenger cars all doors are kept closed while the vehicle is in motion. Passengers keep wholly inside the vehicles unless specifically directed otherwise. On trucks, tail gates are kept closed while trucks are in motion.

a. In ceremonies.—In parades or review enlisted men occupying vehicles, except drivers, fold the arms across the breast while passing the reviewing stand.

b. Attention.—The position of attention assumed by occupants of motor vehicles is an alert position, with back erect, the chest lifted, shoulders squared, head up, eyes straight in the direction the occupant is facing, arms falling naturally at the side. Silence is maintained.

c. Rests.—The commands are: **AT EASE; REST; ROUTE ORDER.**

(1) At the command **At ease**, occupants of motor vehicles may assume a relaxed posture but do not leave their positions in the vehicle. Silence is maintained.

(2) At the command **Rest**, positions are maintained, comfortable postures may be assumed, and occupants may talk.

(3) **Route order** is the habitual march order. On long marches and in the zone of combat, where every opportunity for sleep or rest must be taken, occupants of motor vehicles not specifically on duty may dispose themselves so as to secure the most comfort and rest.

d. Smoking.—Occupants of motor vehicles smoke only at the **Route order**, and then only when specific permission has been granted for smoking in the type vehicle they occupy.

$\mathcal{C}^{\infty}(\mathbb{R}^n, \mathbb{R}) \rightarrow \mathcal{C}^{\infty}(\mathbb{R}^n, \mathbb{R})$

CHAPTER 2

DRILL

SECTION I

GENERAL

13. General rules.—*a.* The forming of line and column and the designation of the base unit are the same as prescribed for horse cavalry.

b. The speed of the base unit is regulated by the leader to facilitate the completion of the movement at the earliest practicable moment.

c. Dismounted drill conforms to that prescribed for horse cavalry. For dismounted movements the element is normally formed in single rank and maneuvered by fours. In dismounted combat the car crew fights dismounted as a squad.

d. In all elements to include the squadron, the commander leads all maneuver up to the assault, at which time he is absorbed in the formation.

14. Commands and signals.—*a.* Commands correspond to those of horse units, except that in mounted maneuver there is generally no command of execution. Movements are initiated as soon as the command is understood, bearing in mind the principles of leading.

b. Commands are given by—

(1) Voice (seldom practicable, mounted).

(2) Whistle or horn.

(3) Radio, voice or telegraph.

(4) Arm signal and touch signal.

(5) Flag or light signal (color).

(6) Example of the leader.

c. Special flag signals for armored car units are prescribed in paragraph 20.

d. Special signals for combat car troops are prescribed in paragraph 27.

15. Formations.—*a. Normal.*—(1) In normal formations within each troop, distances and intervals of 15 yards are main-

tained between all vehicles except motorcycles. For example, the platoon leader's command car of the base platoon is 15 yards distant from the troop commander's car. In line formations, cars within a platoon are at 15 yards interval. In column formations, cars within a platoon are at 15 yards distance. The adjacent flank cars of adjacent platoons in line are at 15 yards interval (except when echeloned in marching). In echelon, cars are spaced at 15 yards interval and 15 yards distance. In column, the platoon leader's car follows the rear car of the preceding platoon at 15 yards distance.

(2) Motorcycles march in the space between cars and on that flank of the unit commander's car which will permit the easiest communication.

(3) Normal formations for all troops and platoons are—

- (a) Line.
- (b) Column.
- (c) Echelon.
- (d) Line of platoon columns.
- (e) Column of platoons.

(4) When the troop marches in line, platoons other than the base echelon on the platoon next toward the base so that the platoon leader's car is abreast the rank of the next platoon toward the base. The troop halts on one line except the troop commander's car, which halts in front.

(5) Normal column formation is prescribed for road marches. Factors of safety, weather, light, road conditions, and rate of march frequently dictate increased distances between vehicles, platoons, and larger units.

b. Extended.—(1) Any normal formation may be extended. When it is so extended it is known as extended formation of the same name.

(2) Extended formations occupy such an extent of ground that great latitude is given car commanders in selecting routes and speeds so as best to maintain the general formation of the element. Extended formations are designed for combat; therefore, car commanders must be especially alert to conform promptly to the commands and example of platoon leaders.

c. Close.—(1) Any normal formation may be closed and then becomes a close formation of the same name.

(2) Close formations are especially applicable to ceremonies and camps.

(3) Normally no evolution of drill other than corrections of alinement are made in close formation.

SECTION II

ARMORED CAR TROOP

16. Base element.—Each base element follows its leader, moving in his trace or on the point designated by him, and at his speed. The other elements regulate and dress on the base element unless otherwise ordered. The base element is normally the center or right center element in line and the leading element in column. The leader may designate any element as the base. Elements are led to their places by the shortest route.

17. Speeds.—Ordinarily the speed of the base unit will be from 10 to 25 miles per hour. When line is formed from column, the rear elements increase their speed without command. Column is formed to the front on the base element at the speed of march. The leader of the base regulates his speed so as to facilitate the formation or to attain the objective in view. All increases and decreases of speed are executed smoothly and gradually.

18. Change of direction.—All turns or changes of direction are executed on a radius of 15 yards without change of speed.

19. Backing.—This is an exceptional movement. Execution requires each vehicle to be guided by an observer watching to the rear.

20. Signals.—In addition to the signals prescribed in paragraph 14, the following flag signals are authorized for tactical purposes:

a. Mounted enemy.—Yellow flag waved and pointed in direction of the enemy.

b. Dismounted enemy.—Yellow flag stationary and pointed in direction of enemy.

21. The crew.—*a. To dismount.*—Being at the halt, with the platoons in any formation the commands are: 1. ***Dismounted posts***, 2. ***MARCH***. The members of each car crew dismount and take position of attention one yard in front of their vehicle



FIGURE 2.—Armored car troop (reconnaissance).

the following order from right to left: car commander, gunner, assistant gunner, driver. The platoon motorcyclist takes post in the space vacated by the platoon leader who takes post 10 yards in front of the center of his car crew. The radio operator remains mounted unless specifically ordered to dismount.

b. To mount.—(1) At the command **Mount** (vehicles in any formation at a halt), all members of the car crew, except the driver, turn to the right and enter the vehicle. The driver turns to the left and enters the vehicle. Members of the car crew take post in the vehicle as follows:

(a) **Driver.**—The driving compartment.

(b) **Car commander.**—The turret (except in ceremonies when he sits next to the driver).

(c) **Gunner.**—The rear compartment.

(d) **Assistant gunner.**—Next to driver.

(2) The gunner assists in transmitting the orders of the car commander to the driver. The assistant gunner observes to the right for the purpose of assisting the driver.

c. Ports.—Ports are opened or closed as ordered. Normally they will be closed when the car is under hostile fire.

d. Prepare for action.—At the command **Action**, each man takes his proper post in the vehicle, guns are half loaded, and preparations made for immediate action.

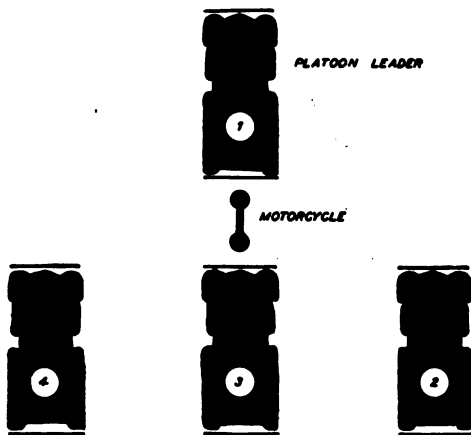
22. The section.—The section executes all movements prescribed for the car crew and in addition combat formations. (See fig. 3.) Tactical or combat situations will require the following modifications:

a. When the section is operating alone the No. 2 car of the section is sent ahead at an increased distance as a point.

b. If the situation requires the section to operate in line, the interval is not fixed but is flexible to allow individual vehicles to take advantage of cover and the best routes of advance.

A. LINE**DISTANCES & INTERVALS.****NORMAL: 15 YARDS****EXTENDED: 100 YARDS****CLOSED: 5 YARDS****SECTION LEADER****B. COLUMN****SECTION LEADER****FIGURE 3.—The section (armored car troop).**

23. **The platoon.**—*a.* The platoon executes all the movements prescribed for the section. When moving in line or column, the platoon leader leads his platoon except when tactical and combat considerations require otherwise. (See fig. 4.)



DISTANCES & INTERVALS ARE SAME AS FOR THE SECTION.

FIGURE 4.—The platoon in line (armored car troop).

b. For tactical and combat formations, the platoon leader's car is the second in column, being preceded by the other car of his section as a point. In line, the platoon leader occupies a position in the line, the second section on his left and the No. 1 car of the first section on his right.

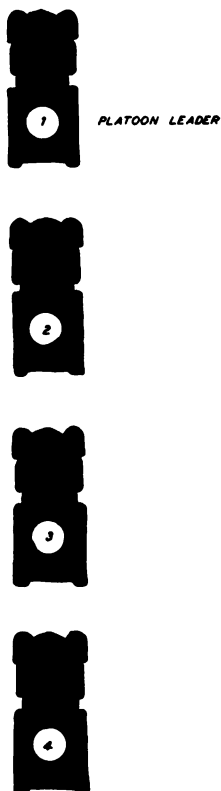


FIGURE 5.—The platoon in column (armored car troop).

24. The troop.—There are no combat formations prescribed for the troop since the troop does not operate as a tactical unit. The platoon is the basic tactical unit of the armored car troop. The only troop formations considered are those for ceremonies and marches.

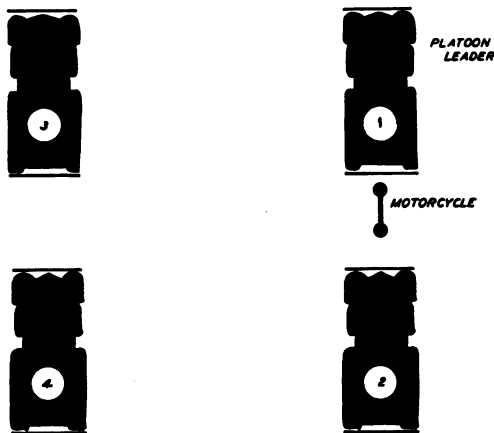


FIGURE 6.—The platoon in line of sections (armored car troop).

a. Column (fig. 7).—(1) This formation is for all administrative marches.

(2) Distances vary from two vehicle lengths to 50 yards, depending on driving conditions and rate of march.

(3) At the halt, all vehicles close on the vehicle in front.

(4) All motorcycles except two precede the troop to control traffic.

(5) One motorcycle follows the troop commander's car and one follows the executive officer's car. These are for the purpose of passing messages back and forth, since the radio sets in these cars generally operate on different frequencies.

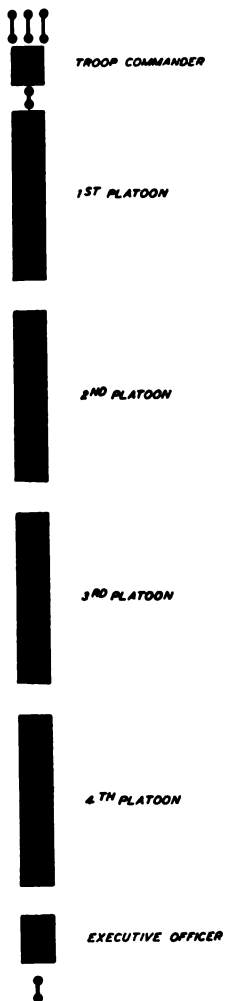


FIGURE 7.—Armored car troop in column.

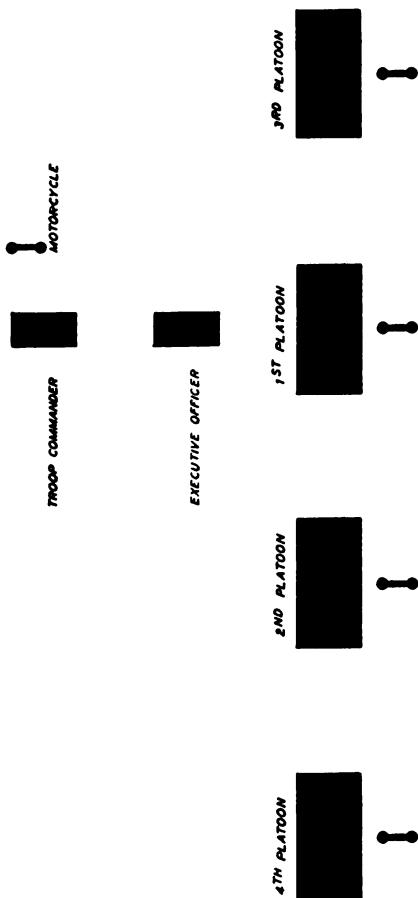


FIGURE 8.—Armored car troop in line (halt only).

- b. Line (halt only)* (fig. 8).—(1) The executive officer's car is 3 yards in front of the No. 1 car of the first platoon.
- (2) The troop commander's car is 3 yards in front of executive officer's car.

(3) If additional motorcycles are attached or assigned to the troop, they follow the troop commander's car.

c. Column of platoons (fig. 9).—(1) The executive officer's car is 10 yards in front of the No. 1 car of the first platoon.

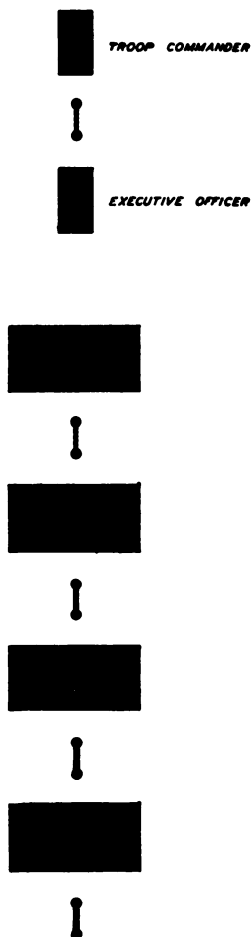


FIGURE 9.—Armored car troop in column of platoons.

(2) The troop commander's car is 10 yards in front of executive officer's car.

d. Line of platoon columns (fig. 10).—(1) The troop commander's car is 5 yards in front of right center platoon.

(2) The executive officer's car is 5 yards in front of left center platoon.

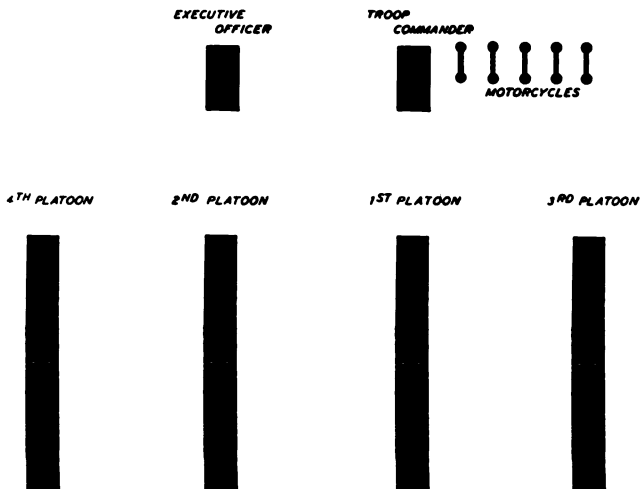


FIGURE 10.—Armored car troop in line of platoon columns.

SECTION III

COMBAT CAR SQUADRON

25. Drill.—*a.* Combat car drill bears the same relation to combat exercises that the cavalry drill mounted does to cavalry combat exercises. It is the foundation of that discipline which insures teamwork under difficult conditions and ultimately brings success in battle.

b. Drill movements normally are executed with the base element marching at speeds from 5 to 25 miles per hour, depending on the terrain and nature of the movement. The speed of the base element is as nearly uniform as possible, although successful leadership necessitates the unit commander varying



FIGURE 11.—Combat car squadron.

the speed of his base during an evolution, while other elements increase or decrease their speed so that the unit may complete the movement and resume normal speed at the earliest practicable moment.

c. Ports in the driver's compartment are opened or closed upon order of the unit commander; in combat, upon order of the car commander. On maneuvers, where the enemy is outlined or represented by other troops, ports are habitually kept open. In general, they are kept open to facilitate observation except when hostile fire forces their closing.

d. No one is permitted to ride on the outside of a combat car at any time.

26. Formations.—a. There are three formations or orders; close, normal, and extended.

(1) *Close order.*—Close order is used for parades and ceremonies. Intervals and distances are reduced to 5 yards.

(2) *Normal order.*—This is the usual drill formation. Intervals and distances are fixed at 15 yards when moving, and at all halts in any formation are reduced to 5 yards. Upon halting in normal order, all units reduce their intervals and distances to those prescribed for close order.

(3) *Extended order.*—Extended order is used for the basic battle formations. Intervals are extended from 100 to 150 yards between cars and distances are reduced or extended as the nature of the terrain, dispositions of the enemy, and exigencies of the situation may demand. Upon halting, relative positions are retained without closing.

b. All movements involving two or more platoons at close and normal distances are successive movements.

27. Signals.—The signals covered herein are in addition to those prescribed in paragraph 14 and include flag, arm, light, and touch signals. Such pyrotechnic signals as may be desired are prescribed in field orders.

a. *Flag signals.*—Four tank signal flags per car are used for intercar communication. They may be displayed through any openings of the car turret. Under favorable conditions this system is practical up to and including the troop. The combat car squadron may be so drilled but the use of mounted motorcycle messengers may frequently supplement the flag signals.

The lowering of a signal flag by a commander is the signal of execution. Promptness in the transmission of signals is important. The following code will be used:

(1) *Do as I do*.—Yellow. A flag which by the manner of its display denotes the desires of the element commander as to changes of direction either of units or of individual cars.

(2) *Line*.—Blue. Held vertical and stationary. It may also denote *Echelon right (left)* when displayed horizontally to the right (left) of the turret.

(3) *Column*.—Red. Held vertical and stationary.

(4) *Extend*.—White. When displayed, elements take up the next most extended formation or order; that is, if displayed in normal order at 15 yards distance and interval, it denotes extended order.

(5) *Assemble or Close*.—Red and blue. When displayed, elements close to the next least extended order.

NOTE.—Signals (1) to (5) generally suffice for the platoon.

(6) *Line of platoon columns*.—White and blue. Displayed vertically and stationary.

(7) *Column of platoon*.—White and red.

NOTE.—Signals (1) to (7) will drill the troop, the white flag in combination with a basic flag denoting *platoon*.

(8) *Line of troop columns*.—Yellow and blue. Displayed vertically and stationary.

(9) *Column of troops*.—Yellow and red. Displayed vertically and stationary.

(10) *Column of troops or Troops in line of platoon columns*.—Yellow and white.

NOTE.—Signals (1) to (10) will drill the squadron, the yellow flag in combination with a basic flag denoting *troop*.

b. Arm signals.—(1) *Dismounted*.—Arm signals may be used in daylight by a guide outside the combat car to control its movements. The guide places and keeps himself in view of the driver. He may face toward or away from the driver while signaling. Arm signals are also used mounted in transmitting administrative orders. The following code will be used:

(a) *Start engine*.—Simulate cranking.

(b) *Stop engine*.—Cross forearms overhead.

(c) *Mount*.—Extend either arm horizontally from shoulder, palm up, and move upward overhead to vertical position and then back to horizontal, repeating as necessary.

(d) *Dismount*.—Extend either arm horizontally from shoulder, palm down, and move downward to body and back to horizontal position, repeating as necessary.

(e) *Move ahead*.—Beckon to driver with hand.

(f) *Come here*.—(When at a distance from car.) Extend hand and arm to full extent toward unit, sweeping same overhead and forward, indicating the point to which it is desired car shall move.

(g) *Move faster*.—Carry fist to shoulder. Rapidly thrust fist up and down several times.

(h) *Move slower*.—Extend arm horizontally from shoulder, palm to front, and move hand up and down vertically about 12 inches several times.

(i) *Change direction right (left)*.—Short outward jerks of the fist to the right (left). The driver continues to turn until the jerks cease.

(j) *Change direction right (left)*.—(When at a distance from car.) Extend hand and arm to full extent toward unit, sweeping same overhead and forward in direction in which it is desired car shall move.

(k) *Halt*.—Extend hand and arm to vertical position, palm toward driver or element for whom signal is intended, and hold stationary.

(l) *Move in reverse*.—Extend hand and arm, palm toward driver, and make pushing motion.

(m) *Caution*.—(For gaging distance in confined space.) Extend both arms forward laterally, palms toward each other, until they meet at the instant it is desired to stop the car.

(2) *Mounted*.—The following arm signals are prescribed when mounted:

(a) *Close up*.—Extend the arms horizontally sideward, palms up, and swing them upward to the vertical position overhead until the palms meet.

(b) *Increase the speed*.—Same as (1) (g) above.

(c) *Slow down*.—Same as (1) (h) above.

(d) *Prepare for action*.—Simulate loading a machine gun as though working the bolt.

(e) *Out of action*.—Both arms extended obliquely upward palms forward.

(f) *Are you ready?*—Extend arm forward and upward toward the unit in question, with palm forward.

c. *Light signals*.—In moving at night, combat car columns should be habitually controlled by means of flashlight signals, the light being subdued to meet the exigencies of the operation.

d. *Touch signals*.—(1) Touch signals are for communication between the combat car commander and his driver. The following code will be used:

(a) *Move forward*.—Tap repeatedly between the shoulder blades.

(b) *Move faster*.—Same as (a) above.

(c) *Move slower*.—Several slow pushes between the shoulder blades.

(d) *Halt*.—A continuous push between the shoulder blades.

(e) *Change direction right (left)*.—Apply pressure on the driver's shoulder on the side toward which it is desired to turn.

(f) *Move in reverse*.—Tap repeatedly on helmet.

(2) As signals are usually transmitted by the car commander's foot, care should be taken to avoid inconveniencing and irritating the driver. To this end care should be taken, especially under the exciting influence of action, either real or simulated, to use no more force than necessary.

(3) Turns and moves in reverse will be continued only as long as the taps are continued.

(4) Increases and decreases of speed, changes of direction, etc., must be made smoothly and gradually.

28. Designation of platoons.—a. The cavalry combat car troop consists of 4 combat car platoons and a troop headquarters. For administrative purposes combat car platoons have permanent designations as 1st platoon, 2d platoon, etc., which have no connection with their temporary designations according to their positions in line or column at drill.

b. For the purposes of drill and tactical employment, the elements of a combat car troop commonly designated as platoons are known solely by number. This system of numbering is based on the relative positions of the elements involved. Position No. 1 is habitually the base position and the element in

position No. 1 is always the leading element. In column or any formation in depth, elements are numbered from head to rear. In line or in any formation involving lateral dispersion, elements are numbered consecutively, commencing with that element in the base position and continuing alternately left and right. No. 4 position is normally the rear position. (See fig. 12.) This system of designation gives a normal diamond formation capable of quick and easy change of direction, thus facilitating employment of the troop.

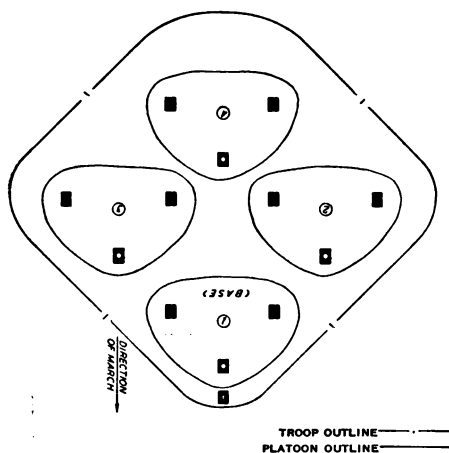


FIGURE 12.—Positions of platoons in line moving (combat car troop).

29. The crew.—The combat car crew consists of four members—car commander, gunner, driver, and assistant driver. In command cars, the gunner is replaced by a radio operator also trained in the duties of gunner.

a. Posts of the crew.—(1) *Dismounted.*—(a) The crew forms dismounted in line with the right man one yard in front of the right track driving sprocket, in order from right to left: car commander, gunner, assistant driver, driver.

(b) Being dismounted, the crew takes dismounted posts at the command *Fall in* or *Stand to car*.

(c) The crew being formed dismounted, at the command **Fall out**, the crew breaks rank and the troopers habitually fall out to the right of their car. (See fig. 13.)

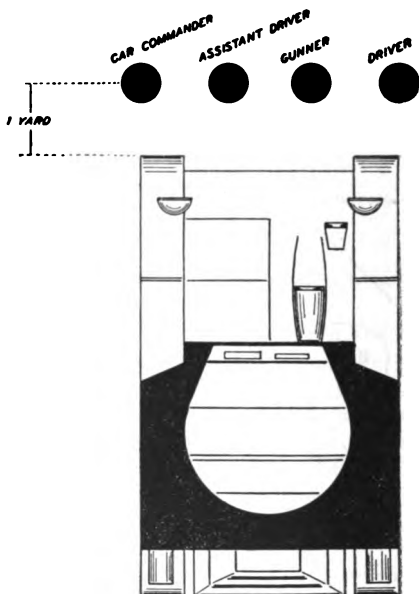


FIGURE 13.—Position of combat car personnel dismounted.

(2) **Mounted.**—(a) The crew forms mounted as follows:

1. **Driver.**—In driver's seat.
2. **Assistant driver.**—In right front seat behind cowl gun.
3. **Gunner.**—In right rear seat. (This is also the radio operator's post.)
4. **Car commander.**—Stands on power shaft housing, head and shoulders exposed through top of turret.

(b) At the command **Prepare for action**, driver and car commander exercise due caution to avoid exposure of person and close the ports should the occasion warrant. The gunner loads both turret guns and assumes firing position as directed by the car commander. The assistant driver loads the cowl gun and

assists closing the ports as necessary. (In the case of command cars the radio operator is the gunner and prepares the turret guns.)

b. To mount the crew.—Being at their posts dismounted, at the command or signal **Mount**, the members of the crew face the car. Stepping to the front stirrup, front plate, left mud guard, and top deck, the car commander posts himself at the left rear of turret, followed immediately by the assistant driver who drops into the turret, assuming his proper post. The gunner, mounting to the left mud guard, stoops, raises the driver's port to the vertical and, after the driver's entry, lowers port, mounts to top deck, and drops into turret to his post, followed by the car commander who drops to the power shaft housing. When the car commander has taken his position in his turret the combat car is ready to move without further signal. In the case of command cars the assistant driver performs the duties herein prescribed for the gunner.

c. To dismount the crew.—Being at their posts mounted, at the command or signal **Dismount**, the car commander emerges from his turret and assumes post at left rear of turret, followed by the gunner, who descends to the left mud guard and raises the driver's port. After the driver has emerged the driver's port is lowered to its open position. All descend to the ground, with the car commander the last to dismount. Each proceeds to his prescribed position, dismounted, by the most direct route, falling in at attention without further command. In the case of command cars the radio operator remains mounted as long as his station is open, the assistant driver performing those duties herein prescribed for the gunner.

d. To abandon car.—At the command **Abandon car**, the crew dismounts from the combat car as expeditiously as possible. The gunner and car commander remove the ground machine gun and mount it on the emergency tripod. The assistant driver removes five belts of ammunition, takes them to gun position, and returns at once to the car. He then places the spare parts box and ramrod in a convenient position and mans the remaining turret weapon. He disables the cowl gun by removing its bolt. The driver disables his engine as may be directed. He then dismounts with submachine gun and takes position as directed by the car commander. Should the assistant driver be

forced to evacuate the car, he disables his turret gun by removing its bolt, secures extra belts of ammunition for the ground gun, ramrod, and spare parts box and, under protection of the driver, dismounts and proceeds to the position of the ground gun.

30. The platoon.—a. Organization.—Three combat cars, one the command or base car, constitute a platoon.

b. Drill.—(1) The drills prescribed for the crew of a single combat car are similarly executed in platoon drill.

(2) The platoon being formed in line, the combat cars are habitually numbered from left to right, 2, 1 (the base), 3. At the halt, all cars are on line with the base car. When moving, nos. 2 and 3 cars are echeloned on each side of the base car as hereinafter prescribed.

(3) The platoon being formed in column, the combat cars are habitually numbered from front to rear in the order 1, 2, 3.

(4) The car occupying the No. 1 position is habitually the base.

(5) The car commander of the base car is the platoon commander.

(6) The radio operator of the base car is the gunner.

c. To form the platoon dismounted.—Combat cars having been started and warmed up—

(1) The senior noncommissioned officer takes position 4 yards in front of the point where the right driving sprocket of the base combat car is to rest, faces it and commands: **FALL IN**, indicating the formation which he desires (habitually either line or column).

(2) The combat cars are brought into the indicated formation and crews dismounted at attention at their posts as prescribed for the individual car crew in paragraph 29a.

(3) The platoon being formed, dismounted, at the command **Fall out**, the crews break ranks, habitually falling out to the right of their respective cars.

(4) The combat cars being in formation, the crews having fallen out, at the command **Stand to car**, the crews resume their posts, dismounted, at attention.

(5) The platoon commander places himself 4 yards in front of and facing the senior noncommissioned officer, who, when the

platoon is ready to move, reports, "Sir, the platoon is formed"; or, if it is not ready, reports the cause of delay.

(6) In forming the platoon, all who are required to make a report salute and maintain it until the report is acknowledged.

(7) To mount the platoon, the platoon commander commands or signals: **MOUNT**, and the crews mount as prescribed for the individual crew in paragraph 29*b*.

d. Mounted formations.—(1) The prescribed formations of the combat car platoon are line, column, and echelon. These formations may be taken in either close, normal, or extended order.

(a) *Distances in column.*—Close, 5 yards; normal, 15 yards; extended, as ordered.

(b) *Intervals in line.*—Close, 5 yards; normal, 15 yards; extended, as ordered.

(2) Halted in line, cars are on line with the base car at 5 yards interval, except that in extended order they halt in place.

(3) Moving in line, cars are echeloned on the base car, distances being measured as prescribed in paragraph 15*a*, intervals being measured from the trace of the base car.

(4) Halted in column, cars close to 5 yards distance, except that in extended order they halt in place.

(5) Moving in column, the correct distances as prescribed in (1) (a) above are resumed.

e. Preliminary training in formations and movements.—Before proceeding to mounted drill, the platoon crews will be given dismounted drill simulating the mounted drill. In this drill only the distances and intervals of close and normal orders will be used. The extended order will be explained, probable car positions being indicated on the terrain. The object of this drill is to accustom the car commanders and crews to all signals and the mechanism of the drill and to allow them to visualize the correct intervals and distances involved. Great care should be taken to stress the fact that the drill is a position drill, the positions being numbered and those numbers being applicable to the car only as long as the formation and the direction of march remain unchanged.

f. Normal order.—(1) *To form line from column.*—(a) The platoon being in motion in column, the signal **Line** (blue) is given from the base car. The base car continues the march,

rate unchanged ; No. 2 car increases the speed slightly and moves by the left oblique, resuming speed when at 15 yards interval from the trace of the base car, and its front on a line 15 yards (measured along the trace) from the rear of the base car. No. 3 car increases the speed smartly and moves by the right oblique to a position abreast of No. 2 car and at 15 yards interval from the trace of the base car.

(b) If the base car halts, the wing cars come up abreast of the base car closing to 5 yards interval.

(2) *To form column from line.*—(a) The platoon being in line, either in motion or at a halt, the signal **Column** (red) is given from the base car. The base car moves out, if halted, or continues the march if in motion. No. 2 car, at the proper time, proceeds by the right oblique so as to take its place in trace of the base car at 15 yards distance. No. 3 car, at the proper time, proceeds by the left oblique so as to take its place in trace of No. 2 car at 15 yards distance.

(b) If the base car halts, the cars following close to 5 yards distance.

(3) *To form echelon right (left).*—(a) The platoon being in line, the signal **Echelon right (left)** (blue, displayed to the right (left) horizontally) is given. The base car moves out, if halted, or continues the march if moving. No. 2 (3) car, at increased speed, continues to its front, passing the base car, and maintaining its interval from that car's projected course until its rear is 15 yards ahead of the front of the base car, measured along that car's projected course, at which point it resumes the normal rate of speed of the base car. No. 3 (2) car continues its rate of march in its normal position to the right (left) rear of the base car.

(b) To return to line (blue), No. 2 (3) car decreases its speed and drops into its normal position.

(c) The platoon being in column, the signal **Echelon right (left)** (blue, displayed as in (a) above is given. The base car moves out, if halted, or continues the march if moving. No. 2 car at increased speed proceeds by the left (right) oblique, passing the base car, and places itself 15 yards in advance of, and 15 yards in interval from, the projected course of the base car. No. 3 car slightly increases its speed and, moving by the

right (left) oblique, places itself 15 yards in rear of, and at 15 yards interval from, the trace of the base car.

(*d*) To return to column (red), No. 2 car decreases its speed, allows the base car to pass, and by the shortest route drops into its correct place. No. 3 car increases its speed and by an oblique returns to its correct place in column.

(*e*) If the base car halts, all cars halt in place. (It is recommended that echelon be habitually formed from column, although exceptional circumstances may necessitate execution from line.)

(4) *To change direction 90° right (left).*—In any platoon formation, the platoon leader so maneuvers his base car as to lead his platoon through the desired change. No signal is necessary. An indication of the new direction is desirable. If in line or echelon, outside cars must increase their speed, inside cars slowing down.

(5) *To march by the right (left) flank.*—In any platoon formation, the signal *By the right (left) flank* (yellow, held vertically and lowered to the right (left) horizontal) is given. Each car individually turns 90° right (left) on its own ground and maintains its new relative position to the base car. This is for short movements only, and a flank movement should be straightened out by means of another flank movement into one of the original basic platoon formations.

(6) *To change direction 180°.*—(*a*) The platoon being in column, no signal is necessary. The platoon commander turns his car to the left about. Nos. 2 and 3 cars follow in trace, turning on the same ground as the base car.

(*b*) The platoon being in line, the signal *To the rear* (yellow, held vertically and lowered toward the rear to the horizontal) is given. Each car makes an individual 180° turn to the left about on a diameter of 15 yards, the flank cars slowing their speed to permit the base car to pass between them and resume its position of leadership in the new direction. (In the new direction the base car remains the same while the former No. 2 car has become No. 3 and the former No. 3 car now occupies the position of No. 2 car. Should column now be given, cars would take their places according to their new position numbers.) (See fig. 14.)

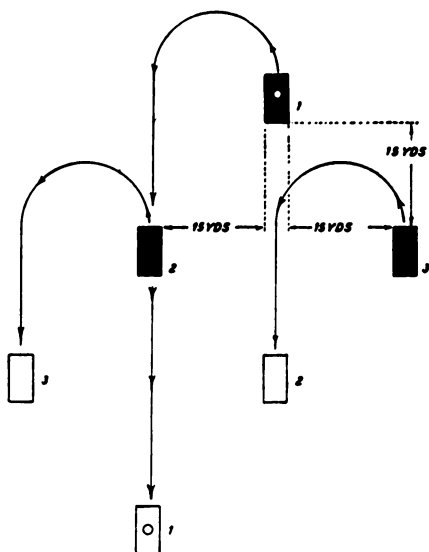


FIGURE 14.—Combat car platoon to the rear. (Note change of position numbers.)

(c) The platoon being in echelon, the signal *To the rear* (yellow, displayed as in (b) above) is given. Each car makes an individual 180° turn to the left about on a diameter of 15 yards and, guiding on the base car, resumes its march in the new direction. (In the new direction there is a reversal not only of positions but of the direction of echelon.)

g. Close order.—(1) Primarily, close order is for parades and ceremonies. It may be used in short periods for disciplinary drill. Great care must be taken in the execution of movements by the flank and to the rear and these movements should be executed only with the most experienced car commanders and drivers, and then only on favorable terrain free of obstacles.

(2) The principles are the same as those of the drill in normal order. Being in any normal order formation, at the signal *Assemble* (red and blue), all distances and intervals are reduced to 5 yards.

(3) To return to the normal order, the signal *Extend* (white) is given. All distances and intervals are at once increased to 15 yards.

h. Extended order.—(1) Extended order is used for tactical training purposes and to develop the initiative and judgment of combat car commanders and drivers in the selection of individual routes over varied terrain toward a definite objective.

(2) The principles are the same as those of the drill in normal order. Being in any normal order formation, the signal *Extend* (white) is given. All distances and intervals are at once extended.

(3) All cars conform to the movements of the base car.

(4) If halted, cars execute the halt in place.

(5) To return to the normal order, the signal *Assemble* (blue and red) is given. All distances and intervals are at once decreased to 15 yards, the platoon habitually assembling in line, unless otherwise indicated.

i. To dismiss the platoon, mounted.—(1) The platoon being in any formation mounted, the command or signal *Dismount* is given.

(2) The crews dismount and *stand to car* at attention, the senior noncommissioned officer of the platoon taking his post 4 yards in front of the right driving sprocket of the base car. He faces the platoon and, when all crews are at their proper dismounted posts, executes an about face.

(3) The platoon commander directs the senior noncommissioned officer, "Dismiss the platoon," and falls out.

(4) Directions for servicing, cleaning, and garaging the cars and cutting the engines are then given and executed.

j. Formations, dismounted, without vehicles.—(1) The dismounted drills prescribed in CFM, volume I, are applicable in principle to the combat car platoon.

(2) Administrative reports, the inspection of arms, etc., should be accomplished prior to departure from barracks for the motor park.

31. The troop.—*a. Drill.*—The drills prescribed for a combat car platoon may also be executed as troop drill.

(1) The troop, being formed in line at the halt, the positions of platoons are as follows: Nos. 2, 1, and 3 from left to right in line, No. 4 placing itself directly in trace of and at 5 yards

distance from No. 1. The base car of the platoon in position No. 1 follows, at the prescribed distances, in trace of the troop commander's car. At the halt, the base car of the platoon in position No. 1 closes on the troop commander's car to 5 yards distance. All cars of platoons in positions Nos. 2, 1, and 3 close to 5 yards interval and halt on line with base car of position No. 1. The base car of the platoon in position No. 4 closes to 5 yards distance on the base car of No. 1, other cars halting as prescribed for the platoon. When moving, the base car of platoon in position No. 1 follows the troop commander's car at the prescribed distances. Cars echelon within platoons and platoons in positions Nos. 2 and 3 echelon on the wing cars of platoon No. 1. Platoon No. 4 drops back to a position 50 yards in trace of platoon No. 1. The other vehicles of troop headquarters, when present, maneuver similarly to a platoon, in rear of platoon No. 4. (See fig. 15.)

(2) The troop being formed in column, the platoons are habitually numbered from front to rear in the order 1, 2 and 3, 4.

(3) The platoon occupying position No. 1 is habitually the base.

(4) The guide of the troop is habitually toward the base car of the base platoon.

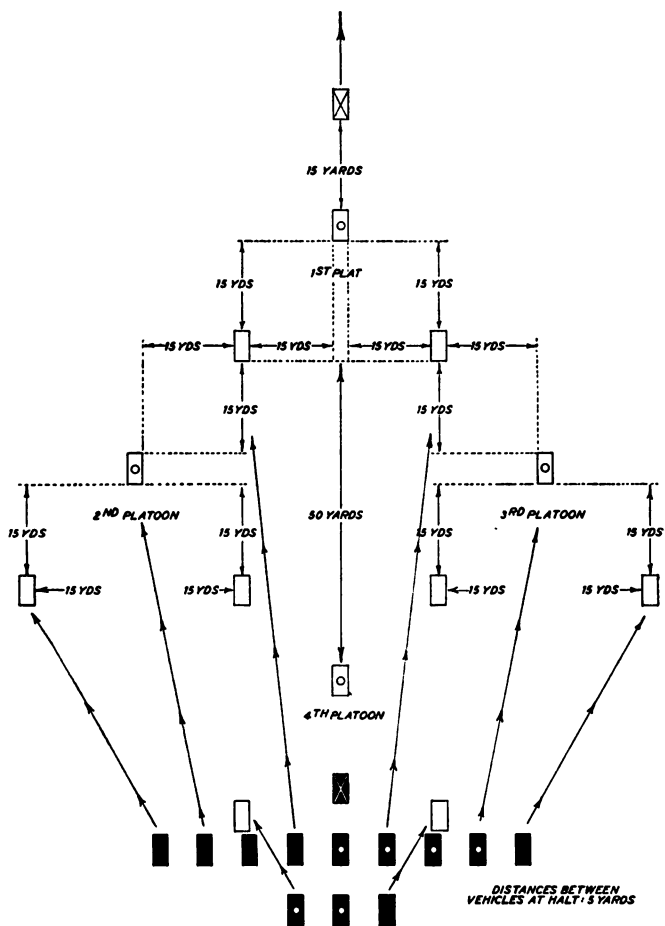
b. To form the troop, dismounted.—Combat cars having been started and warmed up—

(1) The first sergeant takes position 4 yards in front of the point where the right driving sprocket of the troop commander's car is to rest and commands: **FALL IN** (or signals **Assemble**, blue and red), indicating the formation.

(2) The senior noncommissioned officer of each platoon places himself in the correct position for his platoon to form on him and commands: **FALL IN**. Each platoon then forms as prescribed in paragraph 30c.

(3) The senior noncommissioned officer of each platoon moves to a convenient point and reports to the first sergeant, "Sir, platoon No. — is formed," and returns to his post.

(4) The first sergeant executes an about face and reports, "Sir, the troop is formed," and without command takes his post.



X TROOP C.O.

○ PLATOON C.O.

FIGURE 15.—Line halted to line moving (combat car troop).

(5) The troop commander places himself 4 yards in front of and facing the first sergeant in time to receive his report.

(6) The platoon commanders, if officers, take their posts when the first sergeant has reported; if in line, 4 yards in front of their senior noncommissioned officer; if in column, 1 yard to the right of the right track of their command cars and on line with the crews thereof.

(7) The troop *falls out, stands to car, and mounts*, as prescribed for the platoon, on the command or signal of the troop commander.

(8) Motorcycles form ahead of the troop commander's position in charge of the senior designated motorcyclist. During road marches, tactical exercises, etc., they control traffic or remain in the vicinity of the troop commander.

c. Mounted formations.—(1) The prescribed mounted formations of the combat car troop are given below. These formations may be extended by displaying the white flag or closed by displaying the red and blue flags of assembly.

(a) *Line*.—Blue.

(b) *Column*.—Red.

(c) *Echelon*.—Blue (horizontal).

(d) *Line of platoon columns*.—White and blue.

(e) *Column of platoons*.—White and red.

(2) Distances and intervals are the same as prescribed for the platoon except that in extended order the desired interval is prescribed. In line, moving, base cars of platoons Nos. 2 and 3 are echeloned on the wing cars of platoon No. 1 at 15 yards distance and interval.

(3) Halted and moving in column, the distances are the same as those prescribed for the platoon.

d. Preliminary training in formations and movements.—The same general principles of preliminary training are applied to the troop as those prescribed for the platoon. Normal order is the habitual disciplinary drill formation mounted.

e. Normal order.—(1) *To form line from column.*—(a) The troop in column, the signal *Line* (blue) is given. The base platoon at once forms line. Platoon commanders of Nos. 2 and 3 conduct their platoons to the left and right oblique respectively and, when their base cars are in correct echelon in relation to the wing cars of No. 1, break their platoons into line.

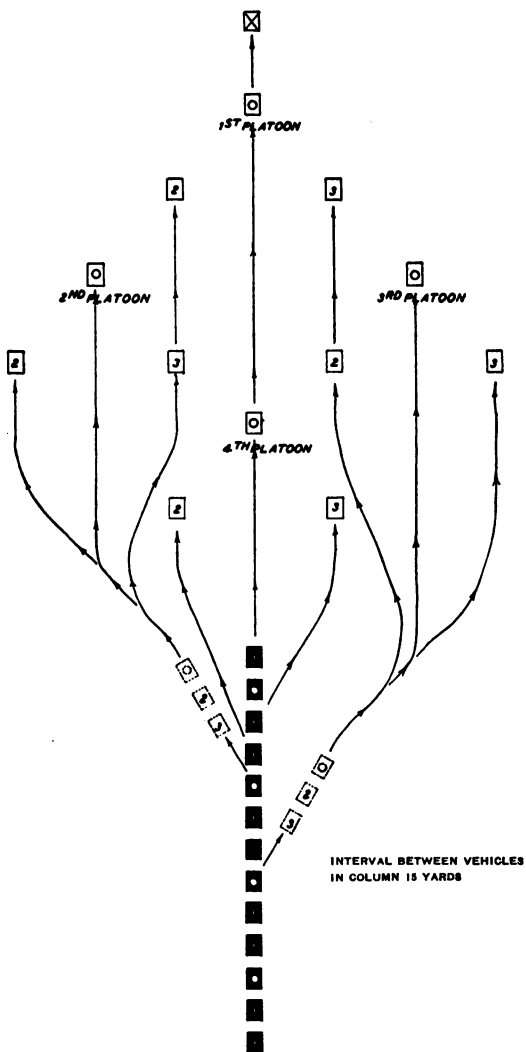


FIGURE 16.—Column to line moving (combat car troop).

Platoon No. 4 at once forms line and so regulates his speed as to attain his position in trace of and at 50 yards distance from the base platoon. (See fig. 16.)

(b) If the troop is halted, cars close in interval and distance of 5 yards.

(2) *To form column from line.*—(a) The troop being in line, either in motion or at the halt, the signal **Column** (red) is given. The troop commander's car and the base car of platoon No. 2 move out if halted, or continue the march if in motion, the base platoon at once forming column. Platoon commanders of positions Nos. 2 and 3 break their platoons into column in time to lead them to their correct positions in the column. The commander of platoon No. 4 continues the march, if moving, breaking his platoon at once into column and so regulating his speed as to attain his proper place in rear of platoon No. 3. If halted, he remains at the halt while the other platoons are gaining their places, breaking his platoon into column in time to lead it to its correct position in rear of platoon No. 3.

(b) If troop is halted, cars close to 5 yards distance.

(3) *To form echelon right (left).*—(a) The troop being in line, the signal **Echelon right (left)** (blue displayed to the right (left) horizontally) is given. The command car, base platoon, and No. 3 (2) continue the march. The commander of No. 4 increases his speed and leads his platoon to position, echeloned, off the right (left) wing car of No. 3 (2). Platoon No. 2 (3) decreases its speed, the platoon commander leading it to the position formerly occupied by No. 4. (See fig. 17.)

(b) To return to **line** (blue), platoons Nos. 2 (3) and 4 increase and decrease their speeds respectively and are led to their normal positions.

(c) The troop being in column, the signal **Echelon right (left)** (blue displayed as in (a) above) is given. The command car, base platoon, and No. 4 continue the march. The commanders of Nos. 2 and 3 lead their platoons at increased speed, individually, to the right (left) oblique, No. 2 echeloning abreast of and 30 yards to the right (left) of the rear car of No. 1; No. 3 echeloning on No. 2 in similar manner. (See fig. 18.)

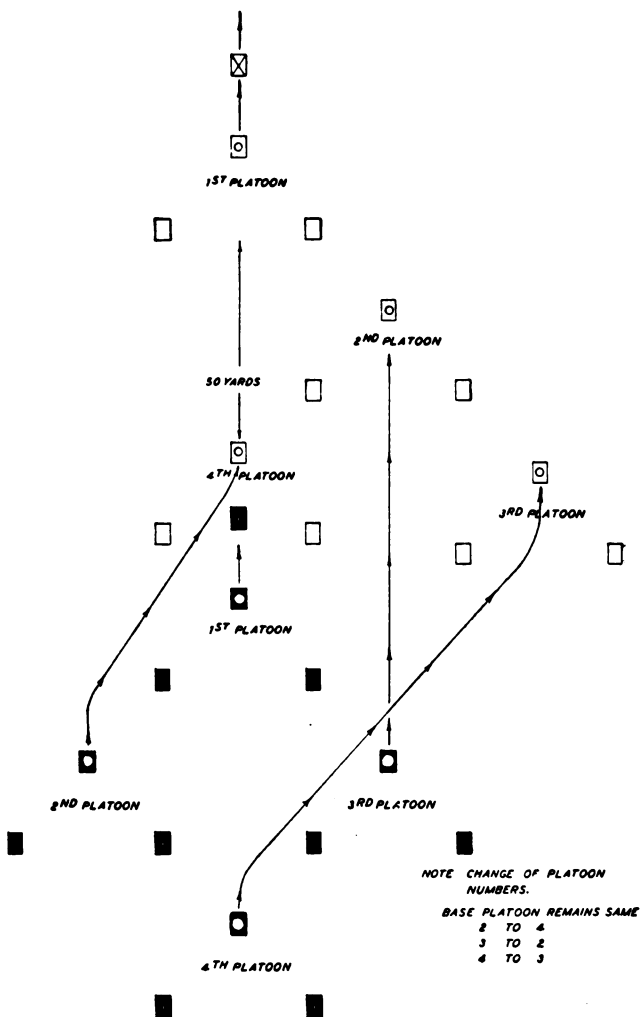


FIGURE 17.—Echelon right from line moving (combat car troop).

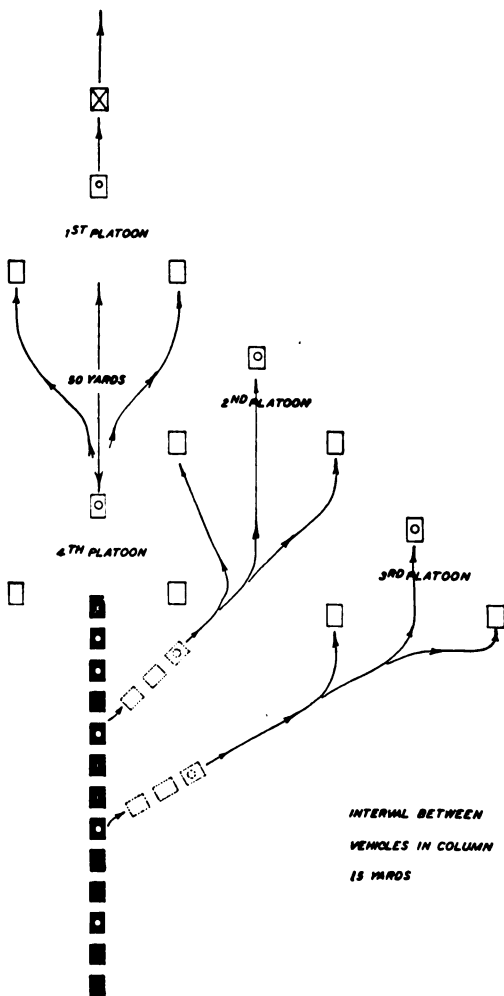


FIGURE 18.—Echelon from column (combat car troop). (No change of platoon numbers.)

(d) To return to **column** (red), each platoon is placed in column and led by a left (right) oblique to its correct position in column.

(e) If the troop halts, all cars halt in place.

(f) Being in echelon or any extended formation, each platoon conforms to the movements and takes the formations of the base platoon.

(4) *To form line of platoon columns.*—(a) The troop being in line either in motion or at the halt, the signal **Line of platoon columns** (white and blue) is given. If halted, the troop moves forward, each platoon commander signals **Column** (red), and continuing the march of his car, breaks his platoon at once into column.

(b) Relative intervals and distances between platoon base cars are maintained.

(c) If the troop halts, platoon commanders lead their platoons to close to 5 yards interval (in the case of No. 4, distance) from the base platoon or No. 2.

(d) To return to **line** (blue), if moving, platoons immediately break into line. If halted, the troop moves forward, platoon commanders conducting their platoons to their correct positions and there breaking them into line.

(e) The troop being in column, either in motion or at the halt, the signal **Line of platoon columns** (white and blue) is given. If halted, the troop moves forward, the commander of platoon No. 2 to the left oblique and the commander of No. 3 to the right oblique, both with increased speed, leading their platoons to their correct positions, with proper echelon. The base platoon and No. 4 continue their march undisturbed.

(f) To return to **column** (red), if halted, the troop moves forward; if moving, the troop commander's car and base platoon continue the march and platoons Nos. 2 and 3 are led by the shortest route to their normal positions in column.

(5) *To form column of platoons.*—(a) The troop being in column either in motion or at the halt, the signal **Column of platoons** (white and red) is given. If halted, the troop moves forward. Each platoon commander without changing his speed continues his march in the trace of the troop command car and breaks his platoon into line.

(b) If the troop halts, platoon commanders' cars close to 5 yards distance and the platoons halt on line.

(c) To return to **column** (red), each platoon commander signals **Column** and continues the march.

(d) The troop being in line either in motion or at the halt, the signal **Column of platoons** (white and red) is given. If halted, the troop moves forward, platoon commanders leading their platoons to their correct position in column, platoons remaining in line.

(e) To return to **line** (blue), each platoon commander leads his platoon to its normal position as heretofore prescribed.

(f) The troop being in line of platoon columns, either in motion or at the halt, the signal **Column of platoons** (white and red) is given. If halted, the troop moves forward, platoon commanders leading their platoons into an approximate column formation as prescribed in (3) (d) above, and as the column is approximated, breaks his platoon into **line** (blue), maintaining his proper distance.

(g) To return to **line of platoon columns** (white and blue), each platoon commander signals **Column** and leads his platoon to the positions prescribed in (4) (e) above.

(6) *To change direction of the troop 90° right (left).*—Being in any troop formation, the troop commander gives **By the right (left) flank** (yellow, held vertical, and lowered to the right (left) horizontal). At the same time the troop commander's car turns suddenly toward the new direction of march, indicating he is to select another base platoon, and then gives the command of execution. Each platoon commander leads his platoon through a change of 90° right (left). The troop commander's car takes position in front of the former platoon No. 3 (2) thus making it the No. 1 (4). Former No. 1 has now become No. 2 (3), former No. 4 has become No. 3 (2), and former No. 2 has become No. 4 (1). Further drill is continued as heretofore prescribed with the new position numbers. (See fig. 19.)

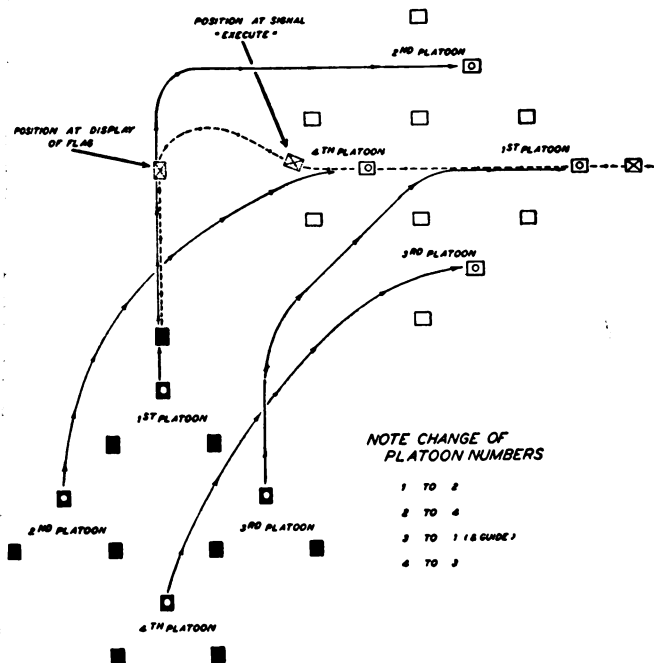


FIGURE 19.—To change direction 90° (combat car troop).

(7) *To march by the right (left) flank.*—(a) Being in any troop formation, the troop commander gives **By the right (left) flank** (yellow, displayed as in (6) above), and continues the march. At the command of execution, each car individually does a 90° change of direction to the right (left).

(b) Prior to any further signals being given, the troop should be marched to its original front by another flank signal.

(8) *To change direction of the troop 180°.*—(a) The troop being in column, the signal **To the rear** (yellow, held vertical and lowered toward the rear to the horizontal) is given. At the same time the troop commander's car turns suddenly to the right about (the troop continuing its march) and when opposite the middle of the troop the command of execution is given.

Each platoon commander leads his platoon to the left about on a half circle of diameter of 15 yards. The column, re-forming and the troop commander's car having gained its lead, move off in the new direction. Position numbers have been reversed the former platoon No. 4 becoming No. 1 and the base. Further drill is continued as heretofore prescribed with the new position numbers. (See fig. 20.)

(b) The troop being in line, the signal *To the rear* (yellow displayed as in (a) above) is given. At the same time the troop commander's car turns suddenly to the left about, passing outside the flank car of the base platoon (the troop continuing its march) and when between platoons Nos. 2 and 3 the command of execution is given. Each platoon does a separate *To the rear*, as prescribed in paragraph 30 f (6) (b).

The troop commander's car having gained its new position in front of the former No. 4, now No. 1 and base, the troop moves off in its new direction. Other position numbers have been changed, former No. 3 to No. 2, former No. 1 to No. 4. Further drill is continued with the new position numbers.

(c) The troop being in column of platoons, the signal *To the rear* (described above) is given. At the same time the troop commander's car turns suddenly to the right about (the troop continuing its march) and when opposite the rear of platoon No. 2, the command of execution is given. Each platoon does a separate *To the rear*. The troop commander's car having gained its new position at the head of the column, drill is continued with reversed position numbers.

(d) The troop being in line of platoon columns, the signal *To the rear* (described above) is given. At the same time the troop command car turns suddenly to the left about (the troop continuing its march) and when between platoons Nos. 2 and 3 the command of execution is given. Each platoon does a separate *To the rear*, as prescribed in paragraph 30 f (6) (b). The troop commander's car having gained its new position in front of the new base, drill is continued with changed position numbers.

32. The squadron.—*a. Organization.*—The squadron is normally commanded by a major, assisted by such commissioned and enlisted personnel as is provided in Tables of Organization.

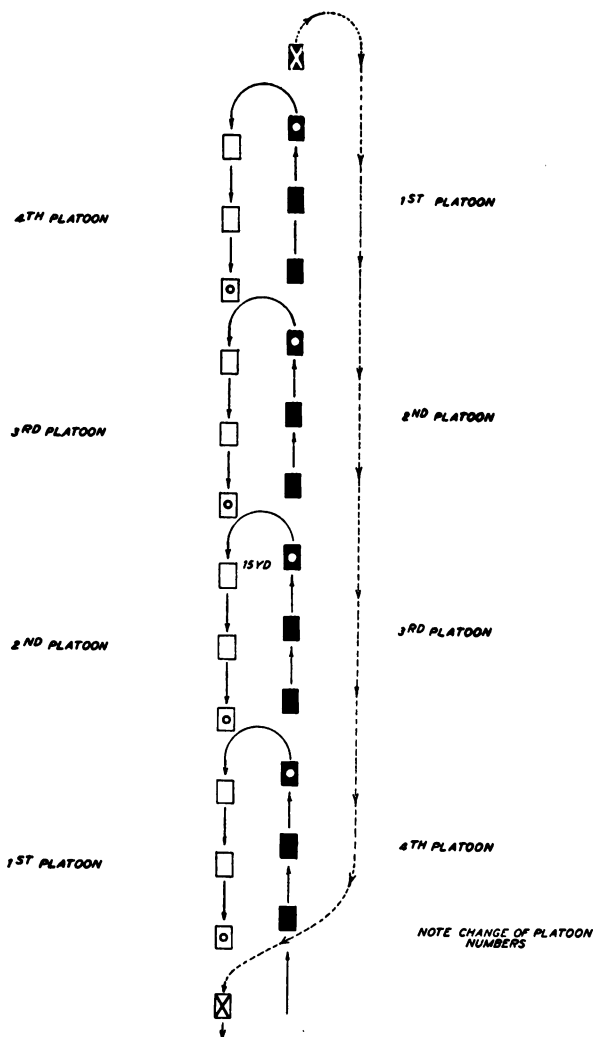


FIGURE 20.—To the rear (troop in column) (combat car troop).

b. Duties of commander.—The squadron commander is responsible for the theoretical and practical training of the squadron. He supervises the preparation of programs and schedules of training and the conduct of instruction by troops with a view to securing thoroughness and uniformity. In the instruction of the squadron as a whole, his efforts will be directed chiefly to the development of tactical efficiency, devoting only such time to the mechanism of the drill and to ceremonies as may be necessary to insure precision, smartness, and proper control.

c. Drill and movements.—(1) All movements of the squadron will be governed by the general principles of mechanized drill. The combat car squadron may be drilled by means of the drills prescribed for the combat car troop. Squadron drill will not be frequent on account of the amount of terrain required.

(2) The normal drill formation for assembly of the squadron is line of platoon columns.

(3) (a) The squadron commander leads and directs the movements of the squadron from his command car by flag signals or radio supplemented by motorcycle messenger, leaving intervals and distances to the discretion of his troop commanders as may be demanded by the nature of the terrain and the exigencies of the situation. Intervals and distances within troops and smaller units remain as heretofore prescribed.

(b) Mounted drill of the mechanized squadron will ordinarily be limited to such movements into basic formations, close and extended order, as can be clearly indicated by flag or arm signals or example of the leader. (See *d* (1) below.)

(4) When the special formations listed in *d* (2) below are required, orders for same must be given by radio or messenger.

(5) A squadron in any line formation habitually forms into any column by breaking to the direction of march from its base troop in line. The base troop is indicated by the squadron commander, who has his command car take post in front of the command car of the troop. Normally the right troop is the base.

(6) The squadron, to form any column formation from any line formation, habitually forms by elements as prescribed for the troop, commencing with the base element of the base troop.

(7) A squadron in column of any kind habitually forms any line formation by a fan-shaped deployment. The second troop in column moves up on the left of the base or leading troop. When the line is to be formed facing a direction other than the direction of march, the head of the column is turned in the new direction before deployment is ordered. In extended order formations, the dispersion makes the unit unwieldy and movements are lengthy in time of execution. Motorcycle messengers or radio may be resorted to for the purpose of transmitting orders. Flags, except under exceptional circumstances, are not useful. Preliminary planning is of the greatest importance and a thorough knowledge of the drill of smaller units is essential.

(8) Distance and interval between troops in close order drill are the same as prescribed for platoons in the troop.

(9) The base platoon of the leading troop is the guide.

(10) The two squadron motorcycles precede the squadron on the march for its protection and traffic control. At ceremonies and inspections, when halted, they are posted in line with and on the left of the squadron commander's car.

d. Formations.—(1) *Mounted.*—The squadron executes all formations prescribed for the troop and in which the basic principles of troop drill apply.

(a) *Column.*—Column is a formation in which one troop is behind the other, each in column of single vehicles. (See fig. 21.)

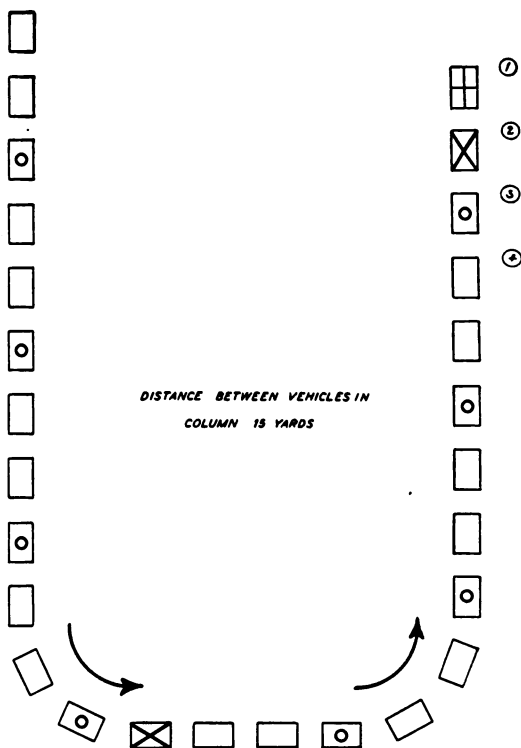


FIGURE 21.—Combat car squadron in column.

1. Squadron commander's car.
2. Troop commander's car.
3. Platoon commander's car.
4. Combat car.

(b) *Column of platoons.*—This is a formation in which one troop is behind the other, each in column of platoons. (See fig. 22.)

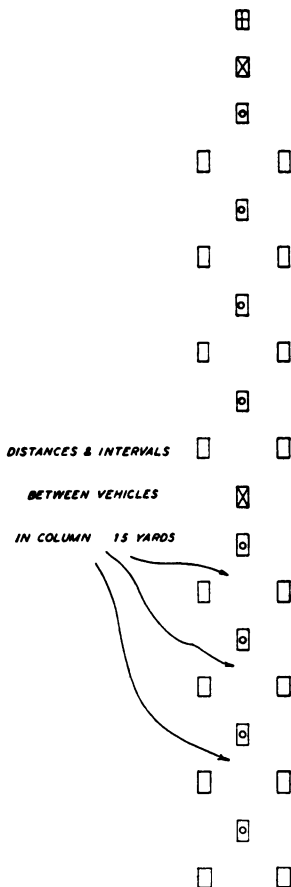


FIGURE 22.—Combat car squadron in column of platoons.

(c) *Line*.—Line is a formation in which the troops are in line and abreast of each other. In each troop the platoons are echeloned on the base platoon except at the halt. (See figs. 23 and 24.)

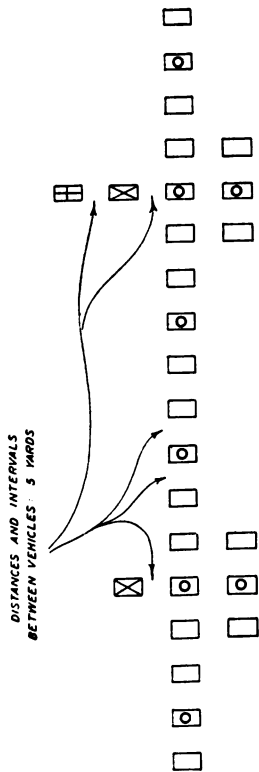


FIGURE 23.—Combat car squadron in line, halted.

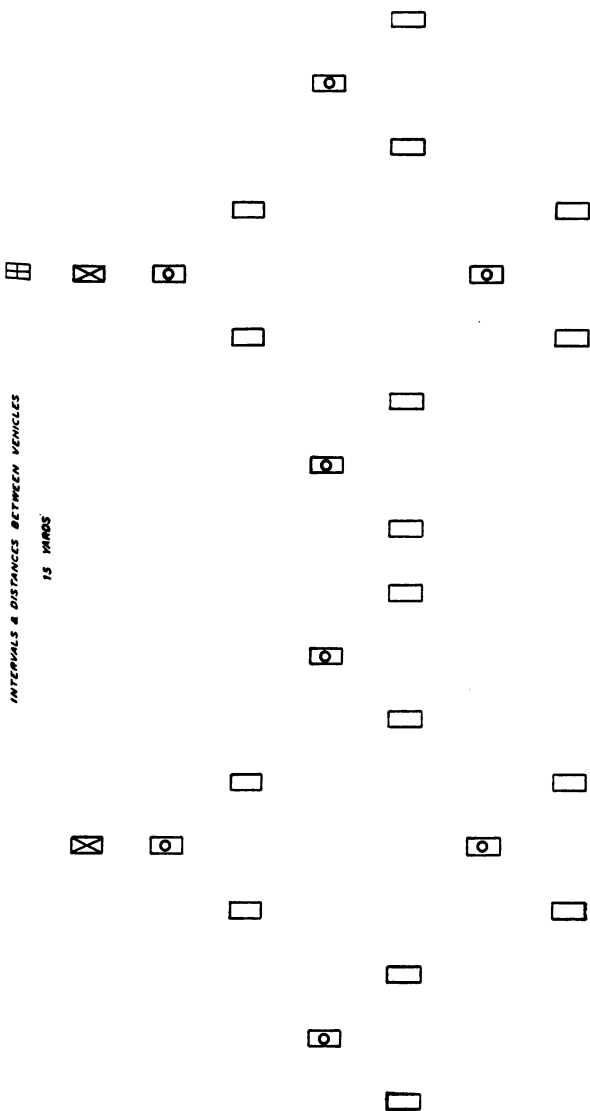


FIGURE 24.—Combat car squadron in line, moving.

(d) *Line of platoon columns.*—This is a formation in which the troops in line of platoon columns are abreast of each other. Platoons are echeloned on the base as in (c) above. (See fig. 25.)

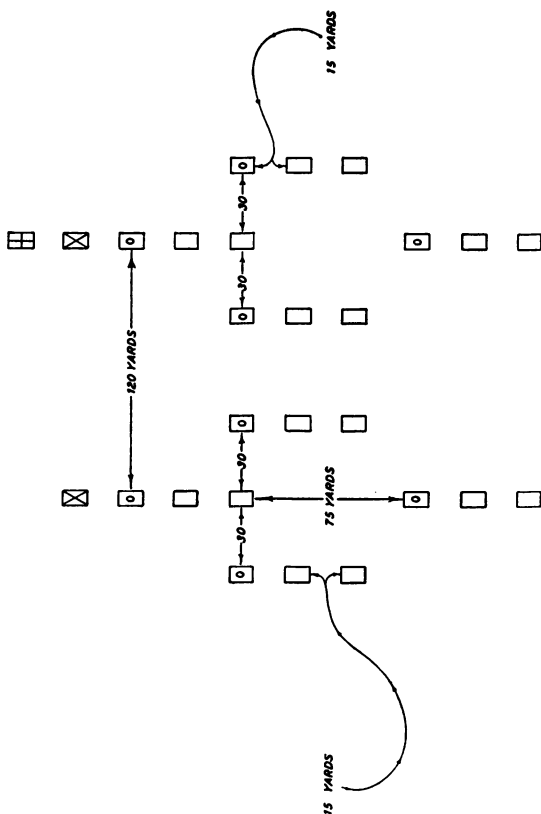


FIGURE 25.—Combat car squadron in line of platoon columns.

(e) *Line of troop columns.*—This is a formation in which the troops in column of vehicles are abreast of each other. (See fig. 26.)

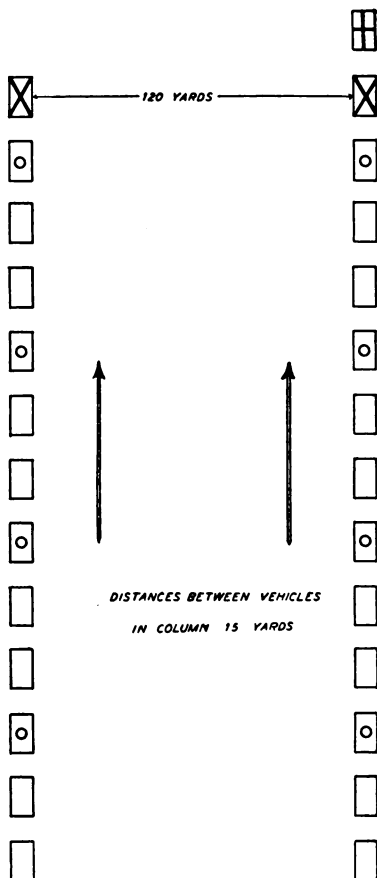


FIGURE 26.—Combat car squadron in line of troop columns.

(2) *Special*.—For tactical and other purposes, the following formations are effective:

(a) *Line of troops, column of platoons*.—This is a formation in which the troops, in column of platoons, are abreast of each other.

(b) *Column of troops; troops with two platoons in the front line and two in support.*

(c) *Column of troops; troops in line.* (See fig. 27.)

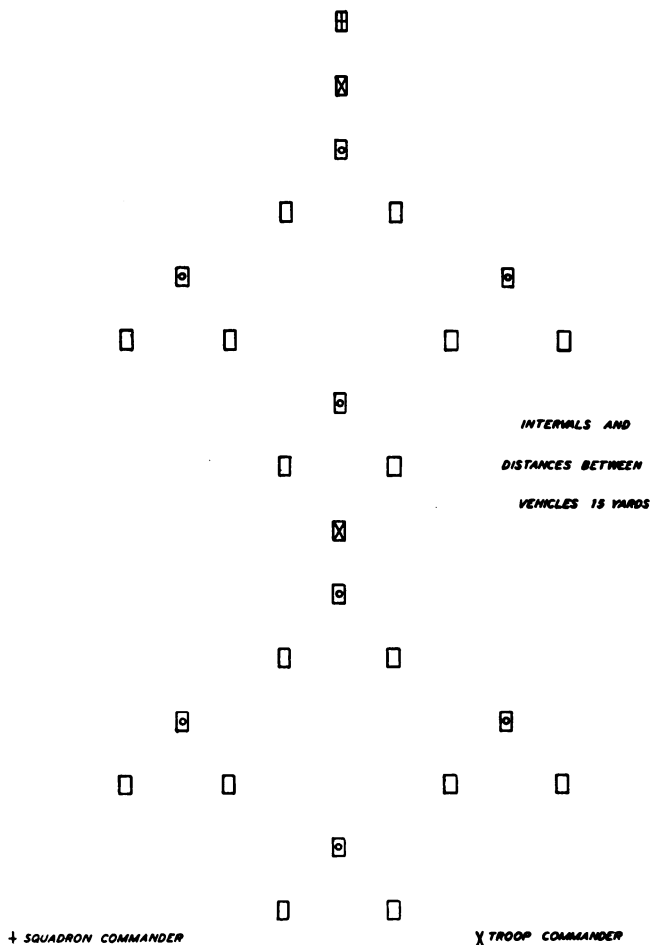


FIGURE 27.—Combat car squadron in column of troops, moving.

(d) *Echelon*.—Echelon is a formation in which one troop is less advanced than the other and is unmasked by the troop in front.

e. *To form the squadron*.—(1) The squadron adjutant informs the troop commanders of the place of assembly and the formation to be taken. The squadron commander's car is posted in front of the desired location of the command car of the base troop, faced to the front.

(2) Troops assemble, taking position habitually in the order of their letter designations from right to left in line or from head to rear in column.

(3) When troops are in place, the adjutant reports to the squadron commander, "Sir, the squadron is formed."

(4) If the squadron commander is dismounted, troops will be dismounted from their vehicles before the squadron is reported formed.

f. *To dismiss the squadron*.—The squadron commander commands: **DISMISS YOUR TROOPS**. Troop commanders conduct their troops to the proper places and dismiss them.

SECTION IV

MACHINE-GUN TROOP

33. Drill.—The machine-gun troop is organized to fight on foot; therefore its drill includes both mounted and dismounted formations and maneuvers. Dismounted movements are limited to short distances, pertain to combat, and conform to the principles of elementary and advanced gun drill prescribed for horse cavalry units in CFM, volume I. For mechanical training, marksmanship, and technique of fire, see BFM, volume III.

a. *Mounted*.—Mounted drill includes the formations and maneuvers of vehicles and also the execution of the necessary duties of personnel to carry on mounted combat.

b. *Dismounted*.—When the troop dismounts to fight on foot, personnel carriers are maneuvered and disposed by the first sergeant. When at a halt, vehicle guns are manned by drivers.

c. *Speeds, intervals, and distances*.—Speeds are usually from 10 to 25 miles per hour. Intervals and distances conform to those prescribed for the other troops of the regiment. Platoons are invariably led by the platoon leader.



FIGURE 28.—Machine-gun troop.



34. Machine-gun squad.—*a. Organization.*—The machine-gun squad consists of a corporal, a driver, two gunners, two assistant gunners, and one ammunition carrier.

b. Dismounted movements.—All dismounted movements described are carried out at a double time. Dismounted movements not described conform to elementary gun drill.

c. To take dismounted posts.—The commands are: 1. **Dismounted posts**, 2. **FALL IN**. The squad forms at attention in column of twos, 1 yard in rear of and facing toward the personnel carrier. (See fig. 29.)

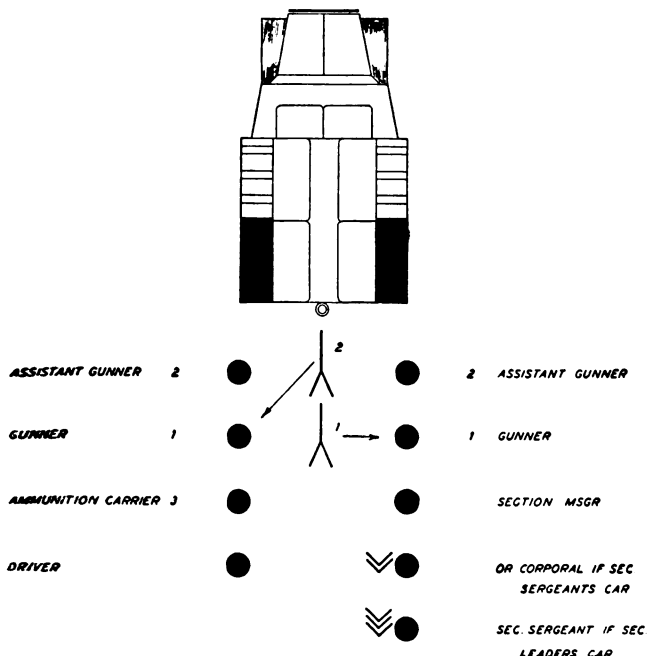


FIGURE 29.—Dismounted posts.

d. To mount the car squad with caliber .30 machine gun.—The command is: **MOUNT**. The driver passes around to the left of the vehicle and takes position on the driver's seat.

The squad leader (or section leader, if a section leader's car) passes around the vehicle to the right and takes position on right of front seat beside the driver. No. 2 of the No. 2 gun crew opens the door and mounts; No. 1 of No. 2 gun passes the gun to his No. 2 and then mounts. No. 2 of No. 1 gun next mounts and receives the No. 1 gun from his No. 1, seating himself on the right side of the vehicle. No. 1 of the No. 1 gun crew then mounts and seats himself on the right side of the vehicle. No. 3 of the squad next mounts and seats himself on the left rear side. The squad leader (if a section leader's car) or section messenger next mounts and seats himself on the right rear side of the vehicle. The squad leader or section messenger is the last to mount. When all are seated with the door closed, they resume the position of attention, sitting erect with both feet on the floor, head and eyes directed to their front, and arms hanging naturally at the sides. If caliber .30 machine guns are not carried, the car squad would fall in and mount in the same order as prescribed above. (See fig. 30.)

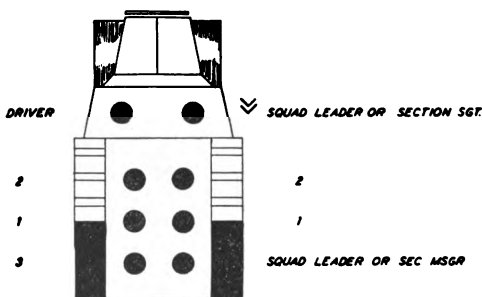


FIGURE 30.—Mounted posts.

e. To mount the car squad with caliber .50 machine gun.—At the command **Mount**, the squad proceeds as follows: The driver and squad or section leader mount on the front seat as heretofore described. No. 2 of No. 2 caliber .50 gun crew mounts first, followed by the other No. 2 of the squad. The two No. 1's dismount the caliber .50 barrel and receiver from the tripod, pass it to the two No. 2's, who secure it under the right seat on brackets provided. The no. 1's next pass the caliber .50 tripod,

folded, to the No. 2's, who secure it under the left seat on brackets provided. No. 1 of No. 2 caliber .30 gun crew next mounts, followed by the other No. 1. No. 3 and squad leader or section messenger then mount in their normal order. The car squad is then seated in the same order as described in *d* above.

f. To dismount the car squad without machine guns.—The command is: **DISMOUNT**. The squad leader or section messenger opens the door and dismounts first, taking position as shown in figure 29. All other persons then dismount in reverse of the order in which they entered.

g. To go into action.—The command is: **ACTION FRONT (REAR) (RIGHT) (LEFT)**. Unless otherwise ordered, the squad goes into action with its caliber .30 guns. The squad, except the driver, dismounts in reverse of the order in which it entered. The squad leader runs to the position where it is desired to place the guns and stands facing the target with arms extended to indicate the line upon which the guns are to be placed. The guns are then mounted in the desired position, the No. 1 gun on the right of the squad leader and the No. 2 gun on his left. Drivers of carriers then take carriers to cover in charge of the driver of the platoon commander's car. In formal drills each carrier is posted 50 yards in rear of center of interval between the two guns of the squad, facing the firing line. When the squad acts alone, its carrier is posted by the driver. When the squad dismounts from the carrier, No. 1 habitually carries the gun mounted on the tripod. In proceeding from the carrier to the firing line indicated by the squad leader, the squad may proceed in a squad column or a line of half squad columns, depending upon the terrain or as ordered by the squad leader. Normally it proceeds to the firing line in half squad columns. (See fig. 31.)

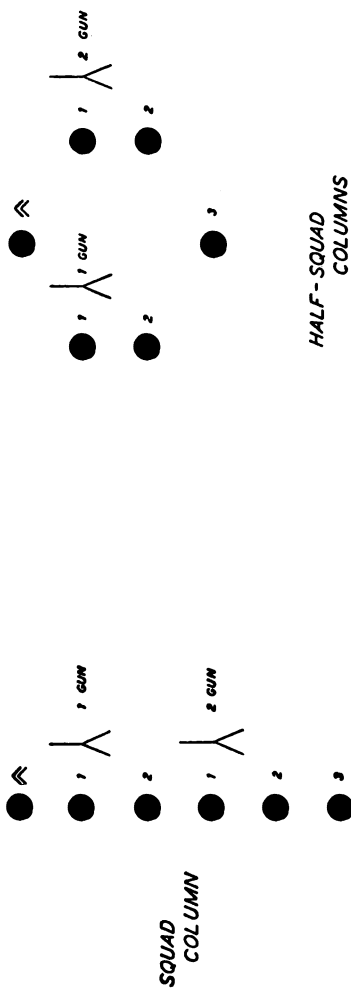


FIGURE 31.—Procession to firing line.

h. To go into action with the caliber .50 machine gun.—The command is: **ACTION FRONT (REAR) (RIGHT) (LEFT) CALIBER .50 MACHINE GUN.** The driver remains mounted. The squad leader dismounts and takes position in rear of car as shown in figure 32. No. 3 takes his habitual position. The No. 1's of guns Nos. 1 and 2 dismount in that order. The No. 2's unstrap the caliber .50 barrel and receiver from its bracket and pass it to the No. 1's. The No. 2's then unstrap the tripod. No. 2 of gun No. 1 crew then dismounts and the other No. 2 passes the tripod to him and then dismounts. (See fig. 32.) In pro-

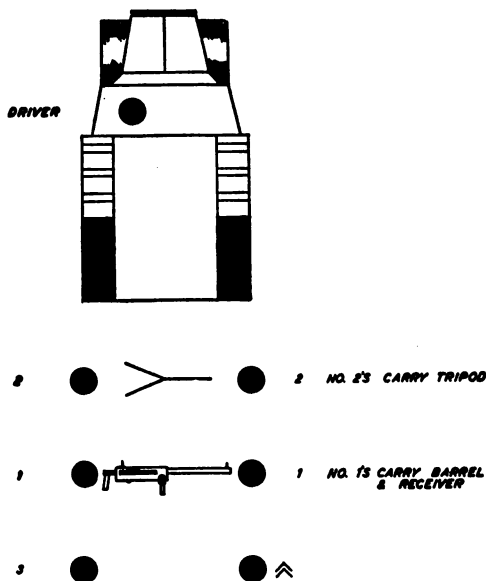


FIGURE 32.—Squad going into action with caliber .50 machine gun.

ceeding from the carrier to the firing line indicated by the squad or section leader, the squad leader leads the squad in a squad column as shown in figure 33. Upon arrival at the firing line, the No. 2's place the tripod on the indicated place. The No. 1's then mount the gun. No. 1 of gun No. 1 crew becomes the gunner and No. 1 of gun No. 2 crew his assistant. The No. 2's drop

back 5 yards and assist in the ammunition supply. No. 3 falls in 5 paces in rear of the No. 2's. The driver of the carrier executes the same movements as described in *g* above. (See fig. 33.)

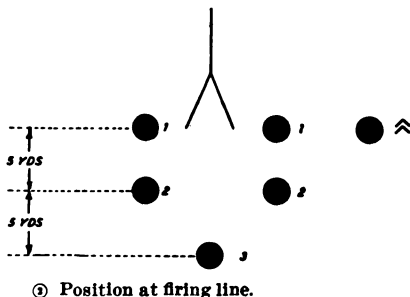
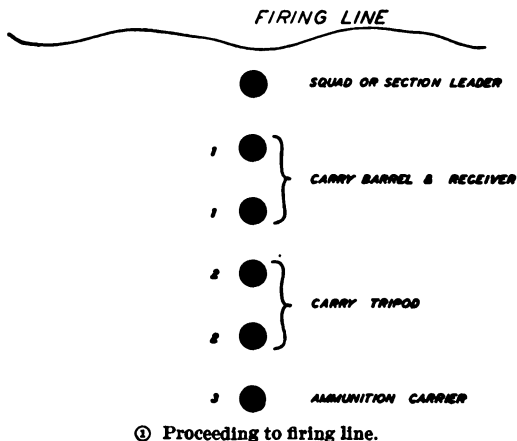


FIGURE 33.—Caliber .50 machine-gun squad at firing line.

i. To go out of action.—(1) If it is desired to have the carriers come up to the firing line, the command is: 1. **Out of action**, 2. **MOUNT**. The squad then mounts with either its caliber .30 or caliber .50 guns as described in *d* and *e* above.

(2) If it is desired to go out of action and march to the carriers, the command is: 1. **Out of action**, 2. **MARCH ORDER**. The squad falls in with its equipment as shown in *g* and *h* above, depending upon whether or not caliber .30 or caliber .50 guns have been employed. It is then led by the squad leader to its carriers, where it mounts.

j. To prepare for mounted action.—The command is: **MOUNTED ACTION**. The No. 1's unload the guns from their racks or tripods. The No. 2's release the spring pin and raise the side cradle mounts to their positions and then clamp pins. The No. 1's then mount their guns. The No. 2's place ammunition boxes in slots, raise lids, and insert brass tags into feedways preparatory to loading. The No. 1's then place themselves in firing position in rear of guns and load. When No. 1's take their positions, all other personnel so dispose themselves in the carrier as to give No. 1's freedom of movement. All remain in the alert position until the squad leader or car commander gives the necessary fire order. During mounted action the cowl gun is also alerted but is only fired directly to the front when necessary or against hostile aircraft. The side mounts are only employed for fire to the right and left or directly to the rear. These limitations of directions are necessary in order to insure the safety of the squad.

k. To go out of mounted action.—The command is: **OUT OF ACTION**. Guns are unloaded, placed in carrying racks or on tripods, and equipment put in its proper place.

35. Rifle squad.—*a. Movements.*—(1) The rifle squad is a part of the rifle platoon but its movements are taken up in this section because of the similarity of control and movements to those of the machine-gun squad. It consists of one corporal, one driver, and five riflemen.

(2) All dismounted movements or drill not described herein conform to those of the cavalry rifle squad, dismounted.

b. To take dismounted posts.—The command is: 1. **Dismounted posts**, 2. **FALL IN**. The squad forms at attention in column of twos, 1 yard in rear of the carrier as shown in figure 34.

c. To mount the car squad.—The command is: **MOUNT**. The driver passes around to the left of the vehicle and takes his position at the wheel. The squad leader or section sergeant

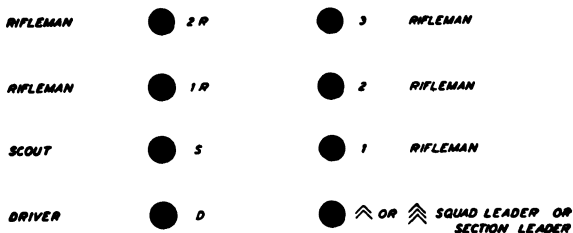
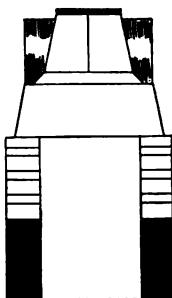


FIGURE 34.—Dismounted posts (cavalry rifle squad).

passes around the right of the vehicle and takes position on right of front seat beside the driver. The riflemen then mount up alternately from right and left and seat themselves as shown in figure 35.

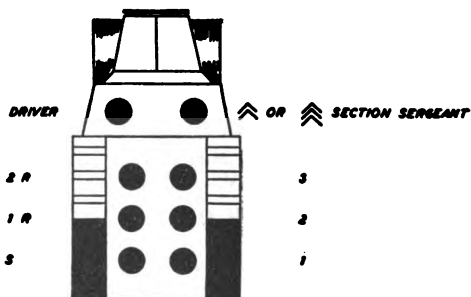


FIGURE 35.—Mounted posts (cavalry rifle squad).

d. To dismount the car squad.—At the command *Dismount*, the entire squad dismounts in reverse of the order described in *c* above.

e. To go into action.—The command is: **ACTION FRONT (REAR) (RIGHT) (LEFT)**. The squad, except the driver, dismounts as prescribed above. The squad leader then leads his squad to the desired position on the firing line by methods as prescribed for the cavalry rifle squad. Drivers of carriers take carriers to cover in charge of the platoon commander's car driver. In formal drills, each carrier is posted 50 yards in rear of center of the squad. When the squad acts alone, its carrier is posted by the driver.

f. To go out of action.—The procedure is the same as that prescribed for the cavalry rifle squad.

g. To prepare for mounted action.—The command is: **MOUNTED ACTION**. Normally the rifle platoon is not equipped with caliber .30 machine guns, hence only car commanders employ the cowl mounts. These are put into action in the same manner as those of the machine-gun platoons.

36. Machine-gun section.—*a. Organization.*—The machine-gun section consists of section headquarters, comprising the section sergeant and his messenger and two machine-gun squads. The section sergeant rides in the car of the first squad of the section and the messenger rides in the right rear of the second car.

b. Commands.—The commands to fall in, mount, dismount, go into action, mounted action, or withdraw from action or mounted action are received from the platoon commander, if the section is acting with its platoon, and conveyed to the squad leaders by the section sergeant. If the section is acting alone, the section sergeant gives his own orders as necessary.

c. Mounted formations.—The section follows mounted formations as ordered by the platoon commander when it is acting with its platoon. When acting alone, the section sergeant gives such commands as are necessary to get the section to the place desired. The section can execute *line* or *column*.

37. Rifle section.—*a.* The rifle section consists of section headquarters, a sergeant, one scout, and two rifle squads. The section sergeants and scouts ride in the same place as described in paragraph 36*a*.

b. The commands to fall in, etc., are carried out in the same manner as prescribed in paragraph 36b. After leaving the carriers, the rifle section sergeant handles his section in the same manner as prescribed for the cavalry rifle platoon.

c. The rifle section performs in the same manner as that prescribed for the machine-gun section in paragraph 36c.

38. Machine-gun platoon.—*a. Organization.*—The machine-gun platoon consists of platoon headquarters and two sections of two squads each. The platoon headquarters normally consists of one lieutenant, one platoon sergeant, one driver of the platoon commander's car, and one platoon messenger. A radio operator is attached from the regimental headquarters troop. A motorcyclist is usually attached from the troop headquarters when the platoon is detached from the troop.

b. Commands.—The commands to fall in, etc., are received from the troop commander and the sequence of command follows the same general order as prescribed in paragraph 36b.

c. Mounted formations.—The machine-gun platoon conforms to formations as ordered by the troop commander. Line or column is invariably used with the platoon leader leading. When the platoon is in action, the empty personnel carriers are disposed for both ground and air defense and to facilitate the supply of ammunition. When so disposed, drivers man the vehicle guns. (See figs. 36, 37, and 38.)

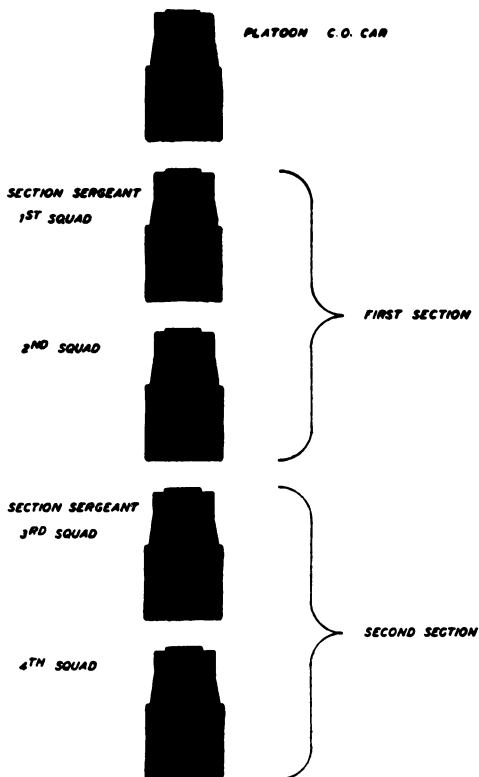


FIGURE 36.—Machine-gun platoon in column.

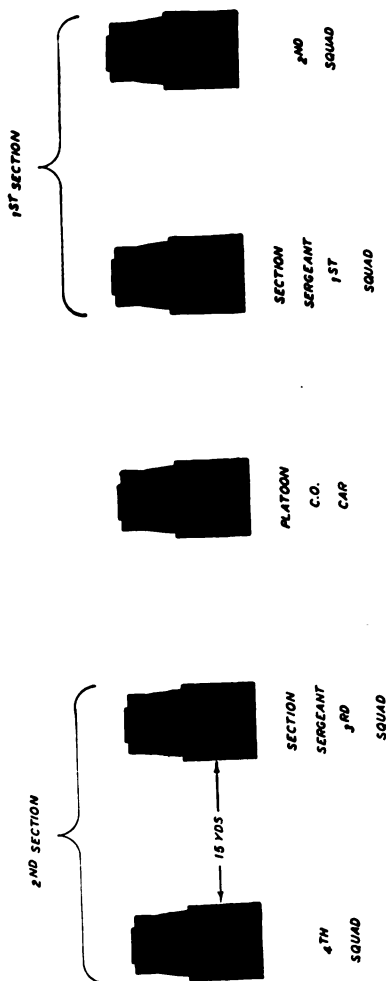


FIGURE 37.—Machine-gun platoon in line formation.

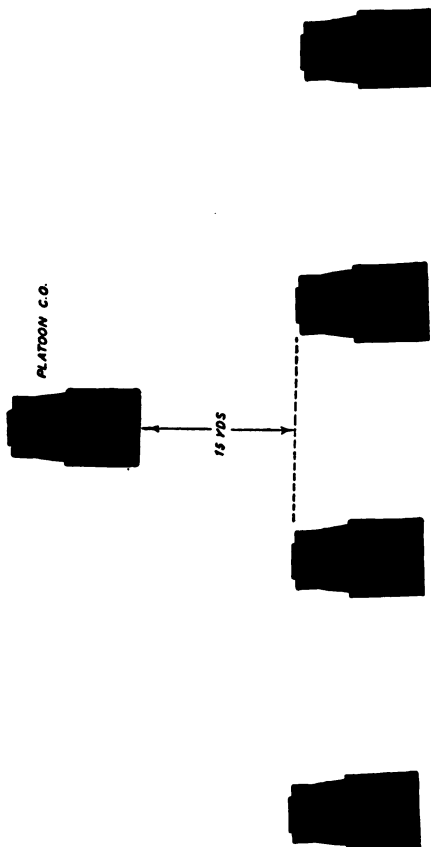


FIGURE 38.—Machine-gun platoon in line formation for review.

39. Rifle platoon.—*a.* This platoon consists of platoon headquarters (one lieutenant, one platoon sergeant, one driver of the platoon commander's car, one platoon messenger mounted on a motorcycle), and two sections of two squads each. A radio operator is attached from regimental headquarters troop.

b. The rifle platoon conforms to the same mounted formations as prescribed in paragraph 38c.

c. In the tactical handling of the platoon, the same principles and formations apply as for the cavalry rifle platoon.

40. The troop.—*a. Organization.*—The machine-gun troop consists of troop headquarters, three machine-gun platoons, and a rifle platoon. The vehicles of troop headquarters are maneuvered as a platoon whenever they are present. They are posted on the left in line and in rear in column.

b. Formations.—(1) The following are the formations used by the machine-gun troop:

(*a*) Line.

(*b*) Column.

(*c*) Line of platoon columns.

(*d*) Column of platoons.

(2) Intervals, distances, and signals conform to those normally prescribed for the other troops of the regiment. When the troop is in dismounted formation in front of vehicles, the normal formation is double rank line. When the troop is in dismounted action, the empty personnel carriers of platoons are grouped separately.

SECTION V

MORTAR PLATOON

41. Training of personnel.—*a.* All enlisted men assigned to the mortar platoon will be given individual instruction.

b. Dismounted drill and mounted drill for this platoon are similar to those for platoons of combat car troops.

c. The mortar drill outlined is applicable to 4.2-inch mortar transported on 4.2-inch mortar carriage, T-5.

42. Technique of mortar fire.—Instruction in the technique of 4.2-inch mortar fire, insofar as practicable, will conform to the methods prescribed by Basic Field Manual. In the appli-

cation of these methods, many expedients may be employed to increase the rapidity of going into and out of action. The accuracy required of mortars in the projection of high explosives and certain chemicals is not required of mortars when the primary mission is the projection of smoke material. This permits dispensing with refinements considered essential in the laying of mortars when accuracy is the prime consideration.

43. The squad.—*a. Organization.*—(1) The mortar squad consists of one corporal and three privates. The corporal commands the squad and directs the service of the mortar. No. 1 is the gunner, No. 2 is the first shell man, No. 3 is the second shell man and driver of the mortar carriage.

(2) The transportation of the mortar squad consists of one 4.2-inch mortar carriage, T-5, on which the mortar is mounted and which transports the squad. Ammunition compartments on this vehicle carry 46 rounds of shell.

(3) All members of the squad are trained as mortar carriage drivers and gunners.

b. To form the squad.—(1) The squad leader, after indicating the position of the mortar, places himself opposite to and 3 yards in front of the right front wheel of the vehicle and commands: 1. **Dismounted posts**, 2. **MARCH**. At this command, members of the squad post themselves as shown in figure 39.

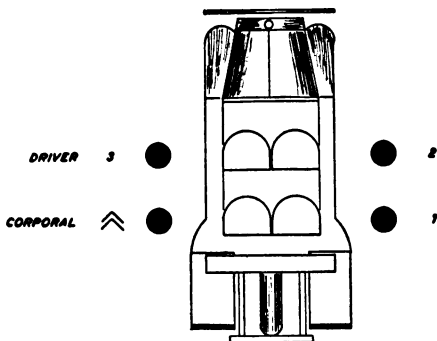


FIGURE 39.—Mortar squad dismounted.

(2) The squad may be formed in front of the vehicle by the command: 1. *One (two) yards in front of vehicle*, 2. *FALL IN*. At this command, Nos. 1, 2, and 3 place themselves in front of the vehicle in the order named, No. 1 on the right.

(3) The men fall in at attention. Interval and alinement are as established in dismounted drill, CFM, volume I. When the squad has fallen in, the squad leader commands: *COUNT OFF*. The command is executed as in dismounted drill except that the corporal when in rank calls, "Corporal." When the squad is part of the section or platoon, the corporal, after interval and alinement have been established, places himself in the first instance opposite his place in the vehicle and in the second instance on the right of No. 1. In case a fifth man is assigned to a vehicle for transportation, he takes post behind No. 1 in the first instance and on the left of No. 3 in the second.

c. *Mounted posts*.—At the command 1. *Prepare to mount*, 2. *MOUNT*, given by the corporal, members of the mortar squad take posts seated at attention in the vehicle, No. 2 in front, the corporal and No. 1 in the rear; the corporal takes his seat in rear of the driver. (See fig. 40.)

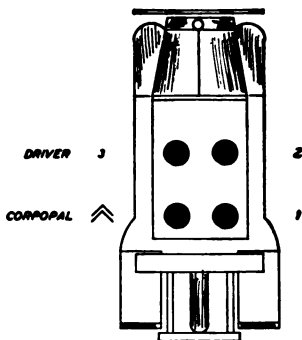


FIGURE 40.—Mortar squad mounted.

d. *Mounted drill*.—With the squad mounted, drill conforms to that prescribed for other single vehicles. The mortar corporal, from his post in the rear seat, will give the necessary commands to start, stop, turn, back, move on a point, and increase or decrease the rate of march. Mounted drill by the single vehicle

of the squad will be used mainly for driving instruction of personnel.

44. The section.—*a. Organization.*—The mortar section consists of a sergeant who is section chief, one messenger, and three mortar squads. The section sergeant commands the section and receives the report from squad leaders at all formations. When a mortar section is attached to a combat car troop or squadron he commands the section and executes duties similar to those of the platoon commander of the platoon.

b. To form the section.—After indicating the place and formation to be taken, the section sergeant places himself opposite and 3 yards in front of where the right of the center vehicle of his section is to be, and commands: 1. **Dismounted posts**, 2. **MARCH**. At this command, the drivers of the squad vehicles drive vehicles into place and each squad takes position as indicated in paragraph 43b. When the section has been formed, the section sergeant commands: **COUNT OFF**. The command is executed simultaneously by squads. When the section is a part of the platoon the section chief takes his position 3 yards in front of the base vehicle of the section.

c. Mounted posts.—To mount the section in the vehicles, the section sergeant commands: 1. **Prepare to mount**, 2. **MOUNT**, and takes his post in the front seat of the base vehicle. Members of each mortar squad take posts mounted as prescribed in paragraph 43c.

d. Formations.—(1) The following formations are prescribed for the section with transportation:

Line.

Column.

Close line.

Close column.

Echelon.

Extended formations.

(a) *Line.*—Line is a formation of the section in which the squads are abreast with interval of 15 yards.

(b) *Column.*—Column is a formation of the section in which the squads follow one another in column with distance of 15 yards.

(c) *Close line.*—This is a formation of the section in which the squads are abreast with an interval of 5 yards.

(d) *Close column*.—This is a formation of the section in which the squads follow one another in column with a distance of 5 yards.

(e) *Echelon*.—Echelon is a formation in which each squad in the section is 15 yards to the rear and 15 yards to the left of the preceding squad.

(f) *Extended formation*.—This is a formation in which the distance and/or interval is more than 15 yards.

(2) In column, the base vehicle is the leading vehicle. In line, the base is the center vehicle unless otherwise indicated. The normal post of the section sergeant is in the vehicle with the leading squad of his section. The messenger is transported with the second squad.

45. The platoon.—*a. Organization*.—The mortar platoon is comprised of two sections of three mortar squads each and the platoon headquarters. The personnel of the platoon headquarters are platoon commander, platoon sergeant (executive), reconnaissance sergeant, and driver of the command car.

b. To form the platoon.—(1) The platoon having arrived at the motor park, the platoon sergeant, after designating the place and formation to be taken, commands: **DRIVERS TO THE FRONT**. The chief of sections and drivers step three paces to the front, are closed in, and are then marched by the senior chief to the vehicles. Arriving at the vehicles, the chief of section in charge commands: **CRANK UP**. The drivers fall out, make the prescribed inspection, and start engines. Drivers then move vehicles onto line, or into the column formation designated by the platoon sergeant, in the order, command vehicle, 1st section, 2d section.

(2) When vehicles are formed on line or in column, the platoon sergeant commands: 1. **Dismounted posts**, 2. **MARCH**. The squads fall in as indicated in paragraph 43*b* and section chiefs take posts on the right of the corporal of the leading squad in their section.

(3) The platoon sergeant then commands: **REPORT**. Section leaders and the senior noncommissioned officer of platoon headquarters report, "All present or accounted for" or "(So many) men absent."

c. Mounted posts.—At the command 1. *Prepare to mount*, 2. **MOUNT**, members of the platoon take seats in vehicles at attention as prescribed for the sections.

d. Mounted drill.—Drill movements of the mortar platoon, mounted, or its elements, insofar as applicable, conform to those prescribed for the combat car troop. In mounted drill, the mortar platoon executes movements prescribed for the combat car troop, the mortar section corresponding to the platoon of the combat car troop.

e. Formations.—The following formations are prescribed:

Line.

Column.

Close line.

Close column.

Column of sections.

Line of section columns.

Echelon.

Extended formations.

(1) *Line.*—Line is a normal order formation of the platoon in which the squads are abreast with interval of 15 yards.

(2) *Column.*—Column is a normal order formation of the platoon in which the squads follow one another in column with distance of 15 yards.

(3) *Close line.*—Close line is a close order formation of the platoon in which the squads are abreast with interval of 5 yards.

(4) *Close column.*—Close column is a close order formation of the platoon in which the squads are following one another in column with distance of 5 yards.

(5) *Column of sections.*—This is a formation of the platoon in which the sections are in line and follow one another at 15 yards distance. (When at the halt, vehicles may close without interval or distance.)

(6) *Line of section columns.*—This is an extended formation of the platoon in which sections are on line, each section in column of squads.

(7) *Echelon.*—Echelon is a formation in which the squads are echeloned at 15 yards interval and 15 yards distance.

(8) *Extended formations*.—Any normal formation may be extended. When it is so extended, it is known as an extended formation of the same name.

46. Drill.—*a. Purpose.*—The primary purpose of mortar drill is to teach all members of the mortar squad the duties of each member in putting the mortar in and out of action and accuracy and speed in handling all equipment. Thorough training of the individual in the duties assigned him is necessary to secure proper handling of the mortar in firing exercises.

b. Equipment.—The following articles of equipment carried on the 4.2-inch mortar carriage, T-5, are required for mortar drill:

4.2-inch mortar carriage, T-5, with mortar.

Sight, 4.2-inch chemical mortar.

Spade.

Pick mattock.

4 aiming stakes (1 modified).

1 rule (mil).

2 sets firing tables.

c. To place mortar in firing position (action).—(1) The ground on which the drill is to be held having been previously selected and the position for the mortar having been determined, the squad leader secures the aiming stakes from the mortar tool chest and establishes the line of aim representing the line mortar-target. Stakes should be from 25 to 50 yards from the vehicle. Having placed the stakes, the corporal, after pointing out the line established by the horizontal stake, commands: **DRIVE INTO POSITION**. The driver moves into position, placing the vehicle in prolongation of the line indicated by the horizontal stake. In section or platoon drill with the corporal mounted, the corporal directs the driver to halt the vehicle at the selected mortar position and commands: **ACTION**. At this command, the corporal and No. 1, leaving their seats in the vehicle from the left and Nos. 2 and 3 from the right, move at the double time to the rear of the vehicle and lower the mortar into firing position as follows: The corporal and No. 2 hold the base plate in place while No. 1 loosens the base plate retaining chain; No. 3 pulls the retaining chain through and lets it drop; Nos. 1 and 3 unbuckle the drag bar chains. The corporal then gives the command:

PULL, at which command the corporal and No. 1 on the left side and Nos. 2 and 3 on the right side pull the base plate straight to the rear until the hinge on the carriage frame is clear of the channel bars. The corporal then commands: **LOWER**, at which command the base plate is lowered until it is about one foot from the ground. The corporal gives the command: **DROP**, to drop the base plate into position, causing the spade to mark its outline on the ground. If the ground is hard, the outline of the spade should be dug deep enough by No. 2 to insure a firm foundation for the base plate. At the corporal's command, the crew moves the base plate forward and No. 2 digs the narrow trench. The corporal then gives the necessary commands to return the base plate to its firing position. The corporal and No. 2 pull the pins locking the carriage frame to the base plate while Nos. 1 and 3 place the drag bars in position. No. 1 unbuckles the barrel strap. No. 2 removes the muzzle cover and places it on top of the right ammunition compartment. No. 2 pulls the lock pin from the elevating screw locking bar and lifts the barrel so that No. 1 can lock the elevating screw to the barrel. No. 2 replaces the elevating screw locking bar. No. 1 inserts the traversing crank in the traversing screw, centers the traversing and elevating mechanism, and places the sight on top of the left ammunition compartment. No. 3 secures the ammunition tool kit, inspects it for completeness, and places it on the right running board. No. 2 lays the cleaning rod across the frame members of the vehicle chassis. No. 3 inspects and prepares the ammunition. No. 1 secures the gunner's kit and places it on the left running board after inspection for completeness. The members of the crew then take their positions at attention as prescribed for members of the crew in "Posts" (g below).

(2) The aiming rods on the front brush guard and the windshield are also set in a line parallel to the vehicle center line, so that a sight taken over these rods on a target by the driver aims the vehicle and the mortar along the line mortar-target.

(3) After emplacement, the mortar may be traversed 200 mils right or left and elevated or depressed between 800 and 1,067 mils. A combination mortar sight, on which both deflection and elevation are set off, is used to lay the mortar by sighting at a vertical line on the center line of the vehicle.

(4) The mortar, with attached carriage arms, may be entirely withdrawn from the vehicle and the mortar set up, laid, and fired as any surface set-up mortar.

*d. To place the mortar in carrying position (out of action).—*The command is: **OUT OF ACTION**. No. 1 replaces the sight in the left ammunition compartment and rolls the gunner's kit and places it in the mortar tool box. No. 2 replaces the cleaning rod. No. 3 rolls the ammunition tool kit and places it in the mortar tool box. The corporal recovers the aiming stakes. Nos. 1 and 2 place the side arms of the carriage frame in the base-plate slots and replace the pins. No. 1 detaches the elevating screw from the barrel, lowering it into its support when the elevating screw has been secured under its locking bar by No. 2. No. 2 replaces the muzzle cover while No. 1 buckles the barrel strap buckle. Nos. 1 and 3 lift the drag bar to its carrying position. The corporal and No. 1 on the left and Nos. 2 and 3 on the right of the base plate take position and at the command: **LIFT**, given by the corporal, raise the base plate until the side arms of the carriage frame are in prolongation of the channel bars. The corporal then gives the command: **PUSH**, at which command the base plate is shoved forward to its carrying position. The corporal and No. 2 hold the base plate in position while No. 3 runs the retaining chain through its rings. No. 1 hooks the chain to the fastening device and tightens the chain so that there is no play in the base plate or the drag bar chains. The members of the crew then take posts mounted in the vehicle.

e. To examine mortar equipment.—(1) The command is: **EXAMINE EQUIPMENT**. At this command each man examines his equipment as follows:

(a) No. 1 (gunner) examines the tool roll to see that the contents are complete and the oiler filled. He examines the mortar sight to see that it is in working order. He also inspects the elevating and traversing mechanism to see that the working parts are in good order. He examines the gunner's tool roll to see that the contents are complete.

(b) No. 3 inspects the ammunition to see that each round is complete and in good order. He also examines the ammunition tool roll to see that the contents are complete and in good working order.

(c) The corporal examines the aiming stakes to see that they are not broken or cracked and that the spikes and tops are intact. He also examines the pick mattock and spade to see that they are serviceable.

(d) Nos. 2 and 3 examine the base plate for defects and to insure that all nuts and bolts are tight and in serviceable condition.

(e) No. 2 removes the base cap and muzzle cover. He removes the cleaning rod from the bore of the mortar for the inspection of No. 1 who sees that the barrel is clean, that the nuts and bolts of bands are tight and in serviceable condition, that the proper firing pin is installed and that it is tight, and that the base cap is screwed tight and is in serviceable condition. No. 2 also examines the cleaning rod.

(2) Equipment may be examined from march order posts when time does not permit placing mortar in firing position.

f. To inspect the mortar squad and equipment.—(1) When the mortar is in firing position, the squad leader commands: 1. **Two yards in rear of equipment**, 2. **FALL IN**. At this command, No. 1 places himself 2 yards in rear of the equipment and the remainder of squad forms on No. 1.

(2) To inspect the squad, the command is: **PREPARE FOR INSPECTION**. At this command the squad executes **Right dress** and **front** at the command of the squad leader and remains at attention until the inspection is completed.

g. To post the crew with mortar in firing position.—The command is: **POSTS**, at which command members of the squad take positions at the double time as follows:

(1) No. 1 stations himself on the left of the muzzle, facing the mortar.

(2) No. 2 stations himself to the right of the muzzle, facing the mortar.

(3) No. 3 stations himself to the right of No. 2, in front of and facing the right shell racks.

(4) The corporal supervises and assists Nos. 1, 2, and 3, when necessary. Before the ammunition becomes exhausted in the right shell racks, he may have to act in the capacity of an additional shell man in the transfer of ammunition from the left racks to those on the right.

h. To stand clear of equipment or vehicles.—The mortar being in the firing position with equipment laid out on the ground, or at the march order, the corporal commands: 1 **Two paces (or other distance) in front of (in rear of, to the right or left of) vehicle**, 2. **FALL IN**. At the command **Fall in**, No. 1 places himself at the distance ordered and the remainder of the squad forms on him at the double time. The normal squad formation, dismounted, is taken.

SECTION VI

HEADQUARTERS AND SERVICE TROOPS

47. Headquarters troop.—With the exception of the mortar platoon, the personnel and vehicles of headquarters troop are normally distributed through the regiment. It, therefore, has no mounted drill as a troop. For dismounted formations, the troop conforms to the drill of the other troops of the regiment. Provisional squads are formed where necessary. Such personnel of the staff platoon as are present are normally attached to one of the other platoons or to troop headquarters.

48. Service troop.—*a. Organization.*—(1) The service troop is organized as an administrative unit for the purpose of forming a transport organization to function in the field, and in the garrison to train drivers and furnish a central pool from which the regiment may draw trucks and passenger cars for the normal uses.

(2) In addition to troop headquarters and the transportation platoon, it contains a maintenance platoon which functions as a salvage and repair unit for vehicles and organizes a semi-permanent repair center during the tactical phase of the regiment's operations.

b. Drill.—The service troop performs mounted drill only as a medium for training drivers to maneuver their vehicles in normal formations for marching, inspections, reviews, and ceremonies.

c. Formations.—Normal formations for the service troop are—Column (close order and extended).

Line of platoon columns.

Column of platoons.

Line.

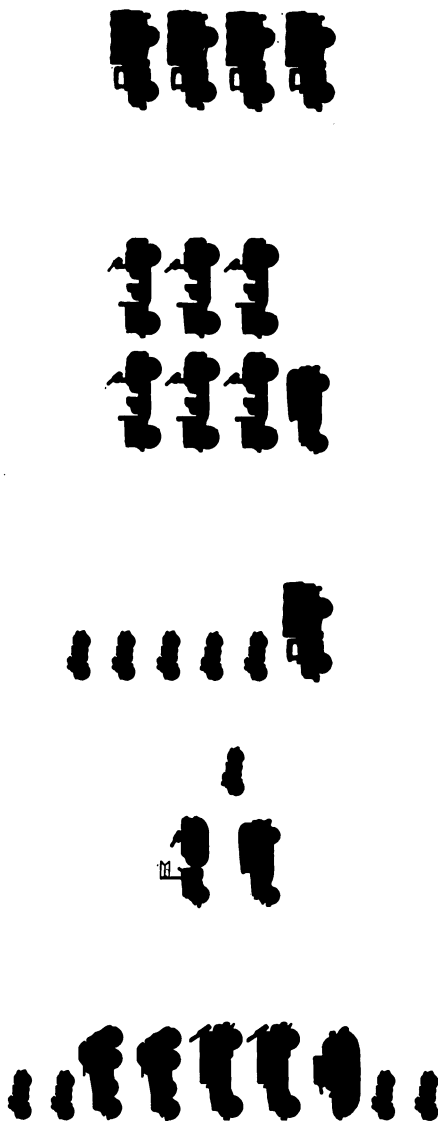


FIGURE 41.—Headquarters troop.

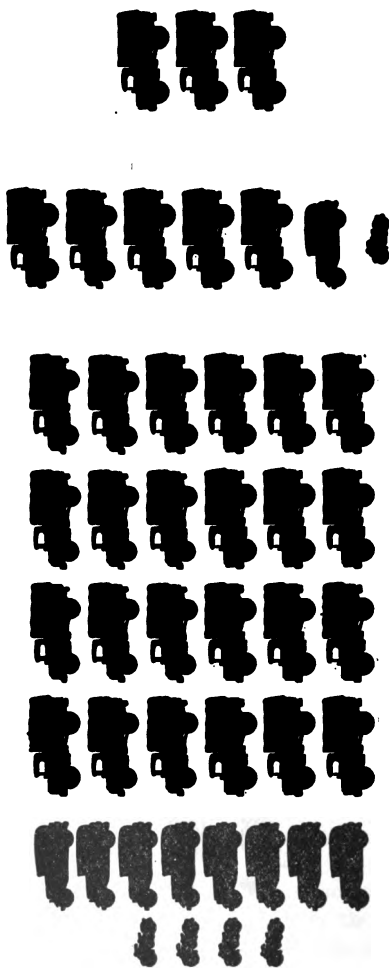


FIGURE 42.—Service troop.



(1) *Column*.—In column formations, closed up, the distance between the vehicles is 5 yards. Extended order may be executed by increasing distances between vehicles or between platoons.

(2) *Line of platoon columns*.—Line of platoon columns is only used as an assembly formation in which the platoons are in a column of vehicles closed to 5 yards distance and 5 yards interval between platoons.

(3) *Column of platoons*.—Column of platoons is normally executed by moving vehicles to the flank from line of platoon columns and increasing the distance between platoons to 15 yards. This distance can be extended or closed if desired.

(4) *Line*.—The troop forms line only when directed by the troop commander. When the troop forms line, the troop commander's car is 10 yards in front of the center vehicle of the transportation platoon. The troop headquarters platoon forms 5 yards to the left of the transportation platoon and the maintenance platoon forms 5 yards to the left of the troop headquarters platoon. When the passenger cars are present, they form in line 5 yards in rear of the transportation platoon with the vehicle on the right directly in rear of the right truck of the transportation platoon. The motorcycles form opposite the right flank of the troop in column of vehicles with 5 yards distance between motorcycles. The platoon commander's vehicles are on line and to the right of their respective platoons.

d. Drill unit.—(1) The basic unit for drill is the platoon.

(2) The transportation platoon is divided in groups of four cars, each group acting as a platoon. All cars guide on the right or left vehicle as directed.

(3) The maintenance platoon forms a platoon of four vehicles in line with the wrecker following the platoon at 5 yards.

e. On the march.—The service troop on the march forms the regimental train including troop headquarters; transportation platoon, which includes the baggage and kitchen trucks of the regiment; and the maintenance platoon, which forms at the rear of the regiment and performs its function of maintenance directly under the maintenance officer.

f. Ceremonies and inspections.—(1) The service troop forms with the regiment for reviews in line, column of platoons, or line of platoon columns. When the regiment is formed in line

of masses, the service troop normally forms on the left of the regiment in line of platoon columns at closed distances and intervals, with the transportation platoon formed in line of section columns, four vehicles in each column.

(2) When the service troop is inspected alone, it may be formed in any desired formation. The usual formation for troop inspection is column of platoons, with the transportation platoon divided in groups of four vehicles, each group acting as a platoon. The troop habitually forms in closed formation with 5 yards distance and interval between vehicles in the following order:

(a) Troop commander and 1st sergeant in passenger vehicle.

(b) Transportation platoon (24 trucks, 2 solo motorcycles, 2 motorcycles with side car, and 8 light passenger cars).

(c) Maintenance platoon (4 trucks, 1 truck, heavy, wrecking, 1 motorcycle with side car, 1 passenger car).

(d) Troop headquarters (3 trucks).

SECTION VII

REGIMENT AND BRIGADE

49. Formations and orders.—Ordinarily regiments and brigades do not engage in close order drill mounted. However, these units may be formed and maneuvered by their commanders in accordance with the principles of drill governing their subordinate units. The commander merely indicates the formation or disposition desired, relinquishing to the next subordinate unit commanders the decision as to the method of accomplishment. Orders may be transmitted by radio, messenger, or visual signals.

CHAPTER 3

CEREMONIES AND INSPECTIONS

SECTION I

GENERAL

50. Dismounted ceremonies.—Dismounted ceremonies conform to the provisions of ceremonies and inspections as prescribed in CFM, volume I.

51. Standards.—At all mounted formations in which the regimental standards are present, they are mounted on a command car of regimental headquarters and posted as appropriate for the ceremony. The guard to the standards consists of two mounted motorcyclists armed with submachine guns.

52. The band.—At mounted ceremonies the band and buglers are formed dismounted and take post 25 yards to the left and 5 yards in rear of the reviewing officer.

53. Rules for personnel at mounted ceremonies.—*a.* No men expose themselves through turret doors.

b. Personnel other than officers and drivers riding seated in open vehicles fold their arms.

c. Regimental, squadron, troop commanders, and platoon leaders salute when passing in review.

d. All changes from dismounted to mounted posts and reverse are executed at double time.

e. Cooks riding in the bodies of kitchen trucks wear white cooks' uniform.

54. Formations.—In mounted ceremonies, the regiment habitually forms in close line of platoon columns. In squadron or troop ceremonies the formation is habitually close line. The regiment forms for inspection in column of troops in close line.

SECTION II

REVIEWS

55. General.—*a.* Regimental review only is prescribed herein.

b. Squadron review is carried out on the same principles; the initial formation, however, is habitually close line.

56. Formations.—To form close line of platoon columns—

a. Troops form in order from the right: Armored car troop, 1st squadron, 2d squadron, machine-gun troop, headquarters troop, service troop.

b. All supply and maintenance vehicles are attached to and form with the service troop.

c. Standards form as directed, normally on the left of the 2d squadron.

d. Prior to adjutant's call, all vehicles are in position and personnel is formed dismounted, each troop in line, 3 yards in front of the line of vehicles.

57. The review.—*a.* At adjutant's call, troops are brought to attention. The adjutant reports the formation of the regiment and takes his post.

b. The regimental commander presents the regiment to the reviewing officer as follows:

(1) At the command 1. *Present*, 2. *ARMS*, the regiment executes the movement as one unit; personnel armed with the rifle executing present arms, others the right hand salute.

(2) When the regimental commander presents the regiment to the reviewing officer, the band plays the honors appropriate to the rank of the reviewing officer.

(3) The regimental commander commands: 1. *Order*, 2. *ARMS*. The regiment returns to attention as one unit.

c. The regimental commander then faces the reviewing officer. If the reviewing officer desires to ride around the regiment, he mounts his car and approaches the regimental commander. The reviewing officer and regimental commander then ride around the command.

58. To pass in review.—*a.* After the reviewing officer has ridden around the command, or if he indicates he does not so desire, the regimental commander faces the regiment and commands: 1. *Pass in review*, 2. *MOUNT*. At the command of execution, all personnel break rank and mount at the double time.

b. Movements to pass in review are as follows:

(1) *By the right flank.*—Executed successively by platoons at the command to pass in review.

(2) *By the left flank.*—Executed successively by platoons in order to make the first change of direction at the right of line.

(3) *By the left flank.*—Executed successively by platoons in order to make the second change of direction before passing the reviewing officer in column of platoons.

c. The speed of march is dependent upon the nature of the ground, but will be at least 15 miles per hour when passing the reviewing officer.

d. After passing well beyond the reviewing officer, platoons break into column and leave the field by an appropriate route.

SECTION III

INSPECTIONS

59. **General.**—The distances and formations prescribed for regimental mounted inspection may be varied to suit the size and shape of the drill field. Inspection of subordinate units with or without field equipment conforms as far as appropriate.

60. **Formations.**—a. Column of troops formed in order as follows: headquarters troop, armored car troop, 1st squadron, 2d squadron, machine-gun troop, and service troop. Troops form in close line with 15 yards distance.

b. Order of vehicles from the right to left in each troop is combat vehicles, supply vehicles, maintenance vehicles, and kitchens. The latter will form at 30 yards interval from the others.

c. When each element has been alined, personnel will be dismounted and each car crew will form 3 yards in front of its vehicle.

d. When all elements are in position as indicated above, the adjutant reports the regiment to the commanding officer.

e. After receiving the adjutant's report, the commanding officer directs the troops to prepare for inspection.

61. **Preparation for inspection of full field equipment.**—a. Shelter tents are pitched on the left of the column in prolongation of the line of troop vehicles after the right of each line of shelter tents has been established by the adjutant.

b. Individual equipment and dismounted machine guns are displayed in front of shelter tents.

c. Vehicle tools are displayed in front of vehicles, hoods and equipment boxes opened, and supply vehicle canvas in place.

d. Vehicle loads are unloaded and displayed in rear of vehicles except kitchen equipment which is displayed on the left of the kitchen truck.

e. Troop officers' tents are erected facing their respective troop lines, the front of the right tent on line with the front of the vehicle line and 20 yards from the right vehicle. Alinement is made on the leading troop by the adjutant.

f. Regimental and squadron officers' tents are pitched in one line 20 yards in rear of the troop officers' line.

g. Troop latrine screens are erected 30 yards to the left of each troop line. The officers' latrine screen is erected 30 yards in rear of officers' tents.

h. Standards are placed in front of the commanding officers' tent. Guidons are placed in front of troop officers' tents.

i. As soon as its field equipment has been displayed, the band forms at the head of the regiment to play during inspection.

62. Inspection procedure.—After preparations for inspection have been completed, the regimental commander inspects each troop in the following order:

a. All personnel posted at their shelter tents.

b. Vehicles and equipment.

63. Other types of inspections.—Other types of inspection may be ordered as desired. The procedure conforms insofar as practicable to that prescribed herein.

SECTION IV

ESCORTS

64. Function and procedure.—The function and procedure of escorts generally follows that prescribed in CFM, volume I, with the following modifications:

a. When space permits, a mounted escort forms in close line facing the road on which it is to move.

b. Personnel take dismounted posts, buglers forming separately on the right.

c. When space does not permit, the escort forms in column, dismounted personnel taking post on the flank of their respective vehicles.

d. If necessary in the interest of public safety, car commanders may be authorized to observe from turrets while the escort is marching.

65. The ceremony.—When the individual to be escorted approaches a position in front of the escort, the escort commander from his post in front of the center of the escort commands: 1. *Present*, 2. *ARMS*, and causes the buglers to sound the appropriate honors. After such inspection as the individual to be escorted desires to make, the escort is mounted and moves out in column successively from the appropriate flank. The same ceremony is repeated at the destination of the escort.

CHAPTER 4

COMBAT TRAINING OF SMALL UNITS

SECTION I

GENERAL

66. Scope.—This section contains the tactical principles applicable to troop leading of all units up to and including the troop. Principles applicable to troop leading of each type of squad, platoon, and troop are set forth in separate sections of this chapter. Principles governing the employment of units larger than a troop are set forth in CFM, volume III.

67. Characteristics of cavalry.—*a.* The characteristics of cavalry are mobility, fire power, and shock.

b. Mechanized cavalry is particularly characterized by greater strategical mobility than horse cavalry, greater fire power and shock, and protective armor. By virtue of its equipment, it is able to perform the normal cavalry missions at great speed. It is limited by a greater sensitivity to terrain than horse cavalry and by the difficulty of its supply and maintenance.

68. Functioning of mechanized cavalry.—The tactical functioning of mechanized cavalry may be divided into four classifications; reconnaissance, striking power, fire support, and defense against hostile antitank weapons. The regiment is the smallest mechanized cavalry organization containing all of these elements.

a. Reconnaissance.—The reconnaissance elements perform reconnaissance missions up to 100 miles in advance of the regiment and also perform the subsequent close-in reconnaissance.

b. Striking power.—The combat car elements furnish the striking power of mechanized cavalry and break the hostile resistance.

c. Fire support.—The machine-gun elements furnish the ground fire support in the following ways:

(1) By firing on crews of hostile antitank guns.

(2) By displacing forward on the heels of the attack to organize the first objective and cover the assembly and reorganization of the attacking units.

(3) By repelling the counterattack of hostile mechanization.

(4) By covering the withdrawal.

d. Defense against hostile antitank weapons.—The mortar elements lay down smoke on the hostile antitank area to prevent hostile gunners from bringing well-aimed fire on the advancing vehicles. The mortars thus constitute the means of neutralizing hostile antitank weapons, whether these weapons are in position on the ground or mounted in hostile combat vehicles.

69. Methods of fighting.—The mechanized cavalry regiment has three distinct ways of imposing its will on the enemy:

a. By supported assault of combat cars against a given objective.

b. By placing combat vehicles in favorable positions from which effective fire can be delivered upon the enemy.

c. By a combination of these methods.

70. Front of attack.—The mechanized attack may be made on a very widely extended front or on a very narrow front, depending upon the terrain and the disposition of the hostile force. When the attack is made on a narrow front, the mechanized attacking elements normally will be disposed in depth.

71. Speed of movement.—The speed of movement of mechanized cavalry will vary from the slow, covered advance of 7 or 8 miles per hour up to the quick thrust at a speed of 45 miles per hour. The normal rate of march of mechanized cavalry on the road is approximately 25 miles per hour.

72. Use of terrain.—Terrain has a decisive influence on the use and operation of mechanized cavalry. Cavalrymen must avoid serious obstacles to movement and take full advantage of terrain favorable to observation, concealment from view, and avoidance of, or protection from, hostile fire. This applies especially to the selection of, and approach to, the firing or assault position.

73. Training of personnel.—*a. Command and leading.*—(1) Mechanized cavalry leaders must be energetic, enterprising, and always ready to seize opportunities for the employment of their commands in furtherance of the plan of the higher commander. They must be quick to estimate a situation and be able to make known their decisions promptly in clear, concise orders.

(2) The initiative of subordinates must be developed in order that they may be prepared to act promptly and correctly in any situation not covered by detailed instructions.

b. Scouting and patrolling.—All personnel of mechanized cavalry units should be trained in scouting and patrolling as covered in CFM, volume I, and chapter 9, BFM, volume I, so far as they apply.

SECTION II

THE ARMORED CAR

74. General.—The nature of the missions assigned the armored car troop of a mechanized regiment of cavalry frequently requires it to operate at a distance from the regiment and semi-independently thereof.

75. The car.—*a.* An armored car has mobility, fire power, armor protection, and a long radius of action.

b. The mobility of the car, combined with its long radius of action, adapts it for use on reconnaissance. Its ability to move at speed is an essential factor in the protection of the crew and vehicle. Although normally employed on roads, it moves across country when necessary and in order to further its mission; however, it is terrain sensitive.

c. The caliber .30 and caliber .50 machine guns provide a heavy fire power for instantaneous use against personnel and matériel. Each car has a ground gun which is effective for close-in mounted combat and for use with dismounted patrols.

d. Armor gives the car reasonable protection against small arms fire and a sense of security and protection to the crew which is conducive to boldness.

e. The car has a safe cruising distance of at least 150 miles on one fill of gasoline.

76. Leadership.—*a.* The strategical and tactical speed of mechanized operations, the independent nature of its operations, and the vehicular vulnerability to antitank weapons and road ambushes demand bold, energetic, and cool leadership in armored car elements.

b. The car commander exercises the greatest vigilance in the supervision of the upkeep of his car. Constant inspections to insure proper cleaning, adjustments, and servicing are essential to maintain the car at a high standard and conserve its power dur-

ing normal usage; also to keep it always prepared for extreme efforts.

77. Training of personnel.—*a.* Armored car operations demand that the unit promptly take advantage of each favorable situation or equally promptly take appropriate countermeasures in unfavorable situations. Therefore, all personnel must not only be familiar and proficient with their own principles of employment and weapons but must also understand those of the troops with which they are operating.

b. The efficiency of the car depends on the manner of execution of their specific duties by the several members of the car crew. In order that a car may continue functioning in case of casualty to one or more of the crew, each must be able to perform the duties of the others.

c. Since the platoon is the combat unit and normally operates beyond close supporting distance of the troop, it must acquire a maneuvering ability instantly responsive to the will of its commander.

78. Control and communication.—*a.* Control of armored car units must be rapid, flexible, and dependable. Control is exercised by physical leadership as far as practicable and is supplemented by available means of communication.

b. Communication includes visual arm, flag, and light signals, radio and motorcycle messenger.

c. Due to the great dispersion of an armored car troop under normal tactical requirements, the most important means of communication is the radio. Direct radio telephony between commanders concerned is the quickest and most satisfactory method. Due to the necessity of the troop maintaining radio communication to the rear with regimental headquarters, to the front with three or four separate platoons, and possibly with cooperating air service, it is essential that all messages be brief and clear and that the strictest radio discipline be observed. Whenever a platoon is in troop reserve, its command car may be used in either the troop or regimental net.

d. When radio is not available or the distance involved does not warrant its use, motorcycle messengers are employed.

e. Cooperation between aviation and armored car units requires direct communication which is maintained by radio, by roped messages, and by panels.

f. Communication is maintained within the platoon by the several forms of visual signals and by motorcycles.

79. Units.—a. The armored car troop provides the regiment commander his chief element for reconnaissance as well as a unit of great fire power and road mobility capable of offensive and defensive action in situations involving limited objectives on favorable terrain. Whenever practicable, the troop moves out one or two hours before the regiment in order to have sufficient time for reconnoitering and subsequently rendering reports without delaying the regiment and in order to give the regimental commander ample time to take full advantage of the hostile information sent back to him.

b. The platoons are the tactical units through which the troop commander carries out his mission. It is essential that the tactical characteristics of the platoon be thoroughly understood.

(1) The following tactical characteristics facilitate the successful employment of the armored car platoon:

- (a) High mobility on roads.
- (b) Long radius of action.
- (c) Ability to transport quickly a potentially heavy fire power to a desired area.
- (d) Minimum time required to go into or withdraw from action.
- (e) Moral effect of sudden appearance.
- (f) Equipped for effective fire against personnel and matériel.
- (g) Weapons mounted so as to admit of immediate employment.
- (h) Liberal supply of ammunition with guns.
- (i) Invulnerability to small-arms fire.
- (j) Rapid and flexible communication.

(2) The following limit the successful employment of the armored car platoon:

- (a) Mobility dependent on gasoline and lubricant supply and on mechanical functioning.
- (b) Limited cross-country ability dependent on terrain.
- (c) Difficulty of operating unobserved in vicinity of the enemy.

(d) Susceptibility to delay by road blocks.

(e) Restriction of operations due to darkness.

(f) Unsuitability for locating small bodies of the enemy and for combing an area.

(g) Vulnerability to antitank weapons.

c. In assigning missions to an armored car unit, consideration is given to the road net and terrain involved. The armored car commander is given all available pertinent information useful in formulating his plans and executing his mission. This includes information of enemy and friendly troops and the mission and general plan of the regiment. The mission will be defined in detail.

SECTION III

ARMORED CAR PLATOON

80. Execution of missions.—The platoon commander on receiving a mission is responsible for the method of execution.

a. Throughout the execution of the mission, the following principles are observed:

(1) The platoon avoids combat except when necessary for the success of the mission. In general, an armored car platoon should not fight to attain a reconnaissance objective if its mobility allows it to side-step intervening hostile resistance.

(2) In the vicinity of the enemy, the platoon maintains sufficient depth to minimize the effect of hostile fire and movement.

(3) Continuous observation and alertness on the part of every member of each car crew are required to prevent the platoon from failing in its mission due to hostile ambushes or surprise attacks.

(4) To facilitate opening immediate fire, all cars when operating in a close situation keep their turret guns trained on the nearest likely position for potential targets.

(5) During halts in the vicinity of the enemy, observation and security are automatically insured by charging No. 1 car with that responsibility to the front, No. 2 to the right, No. 3 to the left, and No. 4 to the rear.

(6) Irrespective of the assigned mission of the platoon, the commander conducts a thorough road reconnaissance on his route of march for the purpose of keeping his troop com-

mander informed of road conditions encountered which would affect the normal march of the regiment thereon. Likewise, during battle reconnaissance he carries on a similar terrain reconnaissance in his area of operation.

(7) The platoon uses every means available to maintain contact with the troop command post, bearing in mind at all times that the principal reason for its existence is to facilitate the mission of the regiment by promptly securing and transmitting information.

(8) Although a platoon in general has an aggressive attitude, it resorts to concealment or flight when such action is more conducive to the accomplishment of the mission.

b. (1) Combat is at times essential to the success of the platoon on any of its assigned missions. Successful armored car combat demands a prompt and vigorous execution of the leader's decision. Armored cars fire when moving and stationary. Stationary fire is the more accurate. However, armored cars avoid halting to return hostile fire except when the car, less the turret, is deflated from such fire. A platoon endeavors to avoid losing its freedom of maneuver by becoming too closely engaged with the enemy, or by the commitment of the entire platoon to a defile or route which might be blocked at the far end. Its formation should never allow the entire platoon to be taken under surprise fire from a critical position nor should it be such as to uncover its rear. A platoon should never be committed against too strong an enemy or position. When the mission permits, operations against the hostile flanks and rear of a less mobile force offer greater opportunity for success.

(2) When taken under surprise fire, continued mobility and rapid attainment of fire superiority are essential. Cars not taken under fire furnish the maximum mutual support by fire and movement. The primary fire targets are antitank weapons.

(3) When the leading car runs into a hostile force, it utilizes its maximum fire power to inflict the greatest damage while the situation is favorable. The primary fire targets are antitank units which should be destroyed before they get into action. The leading car does not hesitate to close when the terrain affords sufficient observation to show that the enemy

an be brushed aside. Care is taken by the car commander not to cause the commitment of the entire platoon to a particular type of action independent of the plans of the platoon commander. The platoon commander, informed of the encounter either from the firing or by means of communication, decides on the immediate employment of the platoon to support the 1 car without committing the platoon to a general advance unless personal reconnaissance so warrants. This assistance will usually be the quick occupation of a firing position which commands the situation. Observation to the flanks and rear is essential to prevent the enemy blocking the route of possible withdrawal.

(4) When the leading car is stopped by a road block, it opens maximum fire on the hostile defense and withdraws to defilade. If the mission demands a forward reconnaissance of that route, and the platoon commander's reconnaissance reveals a weak defense, he may attempt to force the road block. This is usually accomplished by the second section maneuvering around a flank of the hostile defense under supporting fire of the first section.

(5) Should the enemy be sighted before he sees the platoon, every precaution is taken to prevent disclosing the platoon's presence. The car, observing the enemy, halts at the nearest cover and informs the platoon leader, who transmits the information to other elements of the platoon and quickly makes a reconnaissance from the vicinity of the reporting car. The second section keeps the platoon leader under observation for signals and takes sufficient distance to facilitate probable employment and at the same time cover the rear of the platoon. Should the mission and immediate situation require combat, the platoon leader decides on offensive or defensive action. Aggressive action generally consists of action by fire and movement against the hostile flanks, where heavy surprise fire is most effective and easily obtained. Defensive action consists of occupying a firing line and causing the enemy to deploy preparatory to attacking the line. When combat is incidental to securing identification or combating hostile armored cars, an ambush should quickly be set. Consideration must always be given to the terrain, road net, and mutual supporting action between elements of the platoon.

c. During combat, elements of a platoon may be separated. When conditions prevent the designation of an assembly point at the time combat orders are issued, separated elements will return to the platoon axis of movement and halt thereon at the first critical point in the general direction of movement.

d. Dismounted combat often results from dismounted patrolling. Dismounted patrols are formed from the personnel of the vehicles. Some gunners and drivers are always left in the vehicles in order that the vehicles may remain mobile. The submachine gun is the principal weapon of dismounted patrols.

81. Reconnaissance.—a. A platoon sent out on a reconnaissance mission must not allow intermediary developments to interfere with obtaining the desired information. The temptation to engage targets of opportunity and fight its way through hostile detourable resistance encountered en route must be guarded against. The most effective reconnaissance platoon is the one that sees without being seen.

b. Information received from inhabitants, discarded enemy equipment, tracks, old bivouac areas, etc., may disclose valuable information when evaluated at higher headquarters.

c. On receipt of a mission, the platoon leader issues a warning order, secures the required maps, and estimates the situation. Prior to starting he inspects and gives the platoon its orders, which include the situation, mission, plans, route, alternate route, and first assembly point. These assembly points are closer together as the platoon approaches probable hostile contact.

d. The platoon commander rides in No. 2 car and the platoon sergeant in command of the second section rides in No. 3 car. No. 1 car acts as the point. No. 2 car follows in rear of No. 1 car at such distance as to permit the latter to accomplish its functions. It is prepared to assist No. 1 car by instant supporting fire on any hostile targets that may develop. In a like manner the second section mutually supports the first section. When an element gains a critical point, the following element rapidly closes on it. Each element keeps the preceding element under observation except for short periods of defilade due to accidents of the terrain. This method of marching and deployment in depth, which is resorted to in all areas where hostile contact is

expected, assures freedom of maneuver for the platoon and minimizes the target presented to the enemy.

e. In passing through a village, over a bridge, or through a defile, the passage by the leading element is covered by the remainder of the platoon from a position on the near side with guns sighted on possible hostile positions. The remainder of the platoon moves out when the leading element has secured the far exit.

f. In reconnoitering a village suspected of containing hostile troops it is best to approach the area from the rear or flank. A detailed reconnaissance with field glasses is made from a convenient observation point, followed by a mounted reconnaissance around the perimeter of the village, which will usually disclose the presence of hostile forces if there are such forces. A more detailed reconnaissance through the streets of the village is then made.

g. The reconnaissance of a hostile column on the march is best performed by observation from several successive observation positions on the flank of the column.

h. The reconnaissance of a hostile camp is made by successively approaching the areas from several directions on the flanks and rear to secure observations. As stealth is essential it may be necessary to perform the latter part of these approaches by small dismounted patrols operating within supporting distance of the concealed armored cars.

i. When on a mission of battle reconnaissance the platoon commander upon his own initiative promptly and vigorously employs his maximum effectiveness to counter any hostile development which constitutes an immediate threat to the success of the regiment in combat.

82. Delaying and harassing action.—*a.* The skillful use of the speed, maneuverability, and the fire power of the platoon, at successive positions, enables it to impede the advance of the hostile force or break down his resistance. In delaying action the platoon accomplishes its mission by successively occupying positions between the hostile force and its objective, thus necessitating the hostile column to deploy frequently for attack. When favorable opportunities offer, surprise attacks are made against the hostile flanks, provided such action does not prevent the platoon from quickly regaining its position in front of the

enemy advance. In harassing action the platoon annoys and wears down the hostile resistance by frequent surprise attacks against the enemy's front, flanks, and rear. In both types of engagements elements of the platoon may be dispersed in width and depth but never beyond mutual supporting distance. The platoon, although at times employing short range intense surprise fire, is always on the alert to prevent hostile flanking action to cut off its route of withdrawal.

b. In delaying action the withdrawal from successive positions may be done by the platoon as a unit, although it is generally accomplished by sections leap-frogging and mutually supporting each other.

c. A delaying position should be such that the enemy must attack it, consume much time in avoiding it, or abandon his advance. The ideal delaying position for armored cars is one covering the route of the enemy at a point where his advance is limited to a narrow front, such as a bridge or defile. Such a position should have good observation, a field of fire at mid and long range, and a route of withdrawal free from hostile observation and fire.

d. Efficient communication between elements of the platoon is essential for their responsive action to the will of the commander.

SECTION IV

ARMORED CAR TROOP

83. Execution of missions.—In the employment of the armored car troop the road net and terrain will usually indicate a certain assignment of missions to the platoons, the execution of which is entrusted to the platoon commanders.

a. In assigning missions to the platoons the following basic principles should be observed:

- (1) The platoon is the basic tactical unit.
- (2) Each platoon is assigned a mission.
- (3) Each platoon is assigned a zone or route.
- (4) Normally one platoon is held in troop reserve.

b. Maximum efficiency in armored car operations, where situations are presented and changed so rapidly, is only possible when every member of the troop has a thorough knowledge of the situation, mission, and orders.

c. As the troop command post will generally be operating at a distance from the regiment and the platoons will be operating over a wide front at a distance in advance of the troop command post, one of the most important problems is assuring the transmission of hostile information from the advance platoons to the rear. Thus the troop commander must always have a prearranged alternative means of liaison which is effective when primary means become inoperative.

d. All information received from the platoons and other sources is evaluated and the necessary measures are taken to assure the timely receipt by the regimental commander of information desired. This includes road net factors affecting the march of the regiment. The latter information must reach the regiment before it has passed the last junction of an alternative route.

e. The platoons are kept under control at all times. This is accomplished by assigning them definite missions, prescribing routes or zones, and prescribing limits of operation or control lines beyond which they do not pass until stated times or further orders. In addition, platoons are ordered to check in by radio at stated hours.

f. The troop commander coordinates the platoon efforts and assures continuity of operation by use of the reserve platoon. He does not hesitate to move with his reserve platoon to assist the action of another platoon if the fulfillment of the troop mission depends on the success of this particular platoon's operation.

g. The troop command post usually marches on the intended route of march of the regiment. The troop command post is advanced from one selected location to another. All elements are kept informed of the location of the command post. These locations should fulfill the following requirements:

(1) Permit satisfactory radio communication and rapid motor liaison to all elements concerned.

(2) Should be at easily located geographical features.

(3) Should coincide with the location of the reserve platoon.

h. When hostile contact becomes imminent, the troop repair truck is hidden from hostile observation outside the probable area of contact or joins the regiment.

1 One of the principal functions of the troop is to furnish road information upon which the regimental commander can make early decisions as to the route of march of the regiment. Information of road conditions which might affect the normal march of the regiment is promptly furnished by the platoons to the troop for transmission to the regiment.

84. Reconnaissance.—*a.* The armored car troop assists the regiment in its several missions by vigorous reconnaissance for the purpose of gaining information of the enemy, of the terrain, or of resources in the theater of operations.

(1) Prior to contact, it reconnoiters the zone of advance, gains contact with the hostile force, and determines its general size, composition, disposition, and movements, including location of the hostile flanks. This reconnaissance extends around the hostile flanks to secure information of the hostile disposition in depth.

(2) When the regiment is committed to combat, the armored car troop maintains battle reconnaissance. This consists of continuous observation of the hostile flanks and rear for the purpose of securing timely information of changes in disposition and observing possible routes over which hostile reinforcements might advance. Elements of the armored car troop may be used in active reserve.

(3) After combat, the armored car troop carries out intensive reconnaissance and delaying and harassing action against the head and flanks of the hostile column, either in pursuit or while covering a withdrawal.

b. In general, the effectiveness of reconnaissance is in direct ratio to the degree of cooperation maintained between aviation and the armored car troop. Terrestrial reconnaissance is greatly facilitated by timely information from observation aviation on—

(1) Location of and approaches to the reconnaissance objective.

(2) Hostile forces in the zone of reconnaissance.

(3) Information on road blocks and hostile armored cars on routes of advance.

c. Reconnaissance of an enemy disposed on a broad front, whether in place or advancing, is accomplished by assigning zones of action to platoons. The width of the zones will be de-

pendent on the road net, the terrain, visibility factors, and the strength, mobility, and probable reaction of the enemy.

d. When reliable information indicates the route of the enemy's advance, definite routes of reconnaissance are assigned to platoons.

85. Delaying and harassing action.—*a.* The operations of the troop in delaying and harassing actions are so similar that both are considered together. In delaying action, as the additional requirement of the mission is to impede the advance of a hostile force on its objective, early contact is desirable.

b. The troop commander initiates reconnaissance to locate the hostile force and thereafter controls the action by assigning routes or zones of action for the platoons and changing them as the situation demands. He keeps constantly informed of the action of the platoons, coordinates them, and employs his reserve platoon to further his mission.

c. Maximum delays are made at natural terrain features, such as streams or ridge lines, where the width of the enemy formation is narrowed into one or more columns.

d. It is advisable to take up additional successive positions rather than hold one position so long as to run the danger of commitment to general combat or of allowing the enemy to cut off the avenue of withdrawal by a flanking movement.

e. The assignment of one or more platoons to operate against the enemy's flanks is most effective in furthering the troop's mission.

86. Special missions.—*a. Covering.*—(1) The troop may be employed to cover the regiment on the march. This necessitates preventing the hostile forces from contacting the regiment. Likely routes of hostile advance leading to the regiment must be denied to the enemy. Due to the limited number of tactical units available, observation and delay should be made along a line through which the hostile force must pass and which has a limited number of crossings. Such favorable lines are usually along streams, ridges, or wooded areas.

(2) When the troop is employed to cover an exposed flank of the regiment on the march, it does so by occupying successive key positions on a parallel route. The road net, terrain, and the mobility of the enemy determine the distance the troop operates from the regiment. The time necessary to block the

successive likely avenues of hostile advance is dependent on the movement of the regiment and the potential enemy time distance between the key positions and the regiment. When the hostile threat is not confined to a limited number of approaches, all elements of the screen are moved forward simultaneously to cover the next probable routes of hostile advance.

b. Securing a key position.—The troop may be employed to secure a key position. In such operations, should the enemy be at some distance from the objective, rapid reconnaissance and early delaying action are conducted. The characteristics of the troop offer greater probability of success by such action than by a passive defense on or near the position. However, at least one platoon is assigned the immediate defense of the position. Should the enemy's disposition be unknown, defensive measures on or near the position, with limited reconnaissance in the most likely direction of the enemy, are undertaken.

SECTION V

COMBAT CAR UNITS

87. Characteristics.—Combat cars furnish the striking power of the regiment. Their armament consists of both antimechanization weapons and weapons for use against hostile personnel. They possess fire power, mobility, and protection. Due to their weight and construction, they add to these three basic attributes two more, those of crushing power and shock. Therefore, the characteristics of a combat car are summed up as being five in number, as follows:

Fire power.

Mobility.

Protection.

Crushing power.

Shock.

88. Supporting elements.—*a.* The combat car units are assisted by the reconnaissance units, the machine-gun units, and the mortar units. In addition to these supporting elements, there is also usually attached artillery. Since all elements of the combat team possess great mobility, hostile artillery finds it difficult to have time to range on them. In the attack, mechanized cavalry elements may generally expect to receive from

friendly artillery a considerable amount of support. This supporting artillery fire is usually suddenly laid down on the first line of hostile resistance and as suddenly lifted to opportune targets among hostile rear installations.

b. Neither the combat car troop nor the combat car squadron is a self-contained element. They must operate in conjunction with supporting elements from other troops. The combat car squadrons constitute that part of the mechanized cavalry regiment which makes the main attack and habitually fights mounted. By use of antitank guns, while halted under suitable cover, they engage hostile mechanization; by use of their smaller machine guns, while moving to the attack, they neutralize personnel targets.

89. Reconnaissance.—Considering the characteristics of a combat car, mobility alone lends itself readily to the accomplishment of a reconnaissance mission. The noise of the motors prevents the turret man or any other member of the crew from hearing. Track noise is also a hindrance. The element of stealth is wholly lacking. If speed is reduced to reduce noise, mobility and celerity are likewise reduced. A reconnaissance in force to secure definite information within an area may be made successfully by combat cars. Their approach to an area should be made swiftly.

90. Security.—*a. Bivouac.*—(1) The combat car elements are habitually a part of the main body and are a part of the main bivouac of any body of troops with which they may be operating. With their machine guns, they may materially strengthen the security of the camp by organizing assigned sectors for close-in defense and so disposing the vehicles that they may be mutually supporting with bands of fire.

(2) The combat cars should be hidden from ground and air observation and covered by small posts from other elements. They should be faced in the direction in which they may be required to act. Intersecting bands of fire should habitually be established by traversing the turrets. Sentries should be posted and crews should bivouac at their vehicles. All guns should be alerted and half-loaded. A thorough reconnaissance of the vicinity should be made with a view to movement either by day or by night. If there are several likely routes of approach to the bivouac favorable to hostile employment, several

small detachments of combat cars may be placed in their vicinity, the main body of cars being held in reserve ready for employment.

(3) Since the present combat car is entirely track-laying, and since even a convertible type can only move off hard roads on tracks, care must be taken to obliterate track marks visible from the air. In sandy or loose soil a drag may be used. In resilient ground, wheeled vehicles may be run over the tracks. Mounted troops riding the track will obliterate it most effectively. Plans must be made to insure cars moving in columns and in exact trace. Bivouacs to be occupied at night should not be occupied by daylight. The nearer a bivouac is to a hard surfaced road the better, for there is then a minimum of track marks to obliterate.

b. Advance guard.—In advance or rear guard operations, the combat car, supported by machine guns, plays the principal role. Normally, a mechanized advance guard is composed of a combat car element with machine guns attached. Since their strength lies in offensive action, combat cars are admirably suited for brushing aside light hostile opposition and insuring the uninterrupted march of the main body. Supported by the fire power of the attached machine guns combined with its own fire power, mobility, and cross-country ability, the combat car elements can force the deployment of larger forces encountered, thus delaying their advance and furnishing the commander opportunity for reconnaissance and the formulation of a plan. Finally, the combat car element can furnish a pivot about which the attacking squadrons may be maneuvered.

c. Rear guard.—In rear guard action, combat cars employ their ability to attack swiftly and unexpectedly with fire, first from one direction, then from another. With machine guns near the axis of movement to deny that axis to the enemy and with a small reconnaissance detachment to furnish information as to enemy dispositions along that axis, the combat car element should seek to force a hostile deployment by surprise fire from a flank, withdrawing before becoming heavily engaged.

91. Offensive combat.—Due to its characteristics of fire power, mobility, protection to crew, crushing power, and shock, the combat car is most advantageously employed as a weapon of offense. Its fire power is capable of use against hostile mechani-

ation as well as against enemy personnel. Its mobility is excellent on roads and across country. Protected by its armor, the crew may employ the fire of their guns with the maximum effect. The crushing power and shock of combat cars reduce hostile resistance and open avenues of approach to vehicles of lesser mobility and to supporting troops.

a. Control.—One of the greatest problems of offensive action is the matter of control. The ideal in combat car leading would be to control the unit with all ports closed, purely by example. The degree of success of combat car operations in battle will depend fundamentally on the perfection of combat car drill attained in rear areas.

b. Methods of fighting.—It is possible to divide the combat car methods of fighting into two distinct categories: first, by supported assault against a given objective; second, by fire from favorably placed vehicles. The assault may again be subdivided, on a basis of formations, into a deployed formation with elements in line, echelon, or deployed in depth, known as successive waves. A small reserve is usually retained to follow the squadron in the attack.

c. The assault.—(1) The most serious threat to combat cars in the assault is the hostile antitank weapons. If they are on the ground, their fire is accurate. Supporting mortars, however, will endeavor to neutralize this hostile antitank fire by smoke. The combat cars may also take an oblique direction of approach at speed, thus forcing the hostile antitank gunners to traverse their weapons hastily with probable loss of accuracy.

(2) Prior to any attack, a reconnaissance is made and a definite, though brief, plan conceived. This plan must consider the—

- (a) Approach.
- (b) Line of departure.
- (c) Hostile position.
- (d) Attack formation.
- (e) Rallying point.

(3) The attack having been launched, control is effected through observation of the leader by subordinate commanders.

(4) As the hostile position is reached, commanders' cars are absorbed by the assault echelon. Troop commanders drop back to a position in rear of the attacking waves where they can

observe and employ their support to the best advantage. Similarly, the squadron commander should take advantage of cover to proceed slowly and observe the progress of the attack, using his reserve as is demanded by the situation. Normally he proceeds to the designated assembly area.

d. Time element.—Because mechanized forces operate at speed, the time element is important. The commander's plan must be made quickly. It must be flexible and brief and must tolerate the possibility of alternate plans becoming necessary.

e. Dispersion.—The combat car element must guard against dispersion.

f. Supporting elements.—All elements supporting combat cars must possess cross-country ability and must be capable of placing themselves in such a position as to offer the maximum amount of support to the combat cars in the minimum amount of time as the cars close in the attack.

g. Attack by waves.—Against an enemy whose flanks cannot be turned, an attack by successive waves may be launched to break the hostile line. When the breach is made, it is widened by successive elements, while those in front proceed to the attack of rear installations. Such an attack formation in depth permits some latitude of maneuver to succeeding elements and assures support to those elements engaging the hostile rear installations.

h. Attack in line.—Against a sparsely held hostile line, an extended line of combat cars may be used, followed by a small reserve. Such employment develops the hostile strong points in the minimum of time and enables the unengaged cars of the forward line to help eradicate and crush them. The reserve is held in hand and ready to attack in whatever direction necessity may dictate.

i. Attack in echelon.—(1) Attack in echelon enables the combat car command to strike a hostile position obliquely to its normal front with all elements closing together, thus promoting cohesion.

(2) Frontal attacks are normally avoided inasmuch as the inherent mobility of combat car units permits attacks on the flanks or in favorable cases even on the hostile rear. The attack must be organized in both front and depth. Each platoon covers a front of from 150 to 300 yards.

j. Approach march.—For the approach march of the combat car platoon, column is ordinarily a suitable formation. For that of the larger units, a line of columns is appropriate. A preliminary reconnaissance having been made, and the direction of attack, objective, limit of attack, and assembly position having been designated in orders, the attack is launched. Troops are led by commanders over routes, taking advantage of terrain features insofar as practicable without deviating too greatly from the designated direction.

k. The assembly.—(1) In assembling, full advantage must be taken of cover. Cohesion must be quickly reestablished for the subsequent thrust that may be ordered. Advantage is taken of natural cover and of any cover afforded by remaining smoke.

(2) The combat cars must be on the alert to facilitate the advance of attached machine-gun elements, protecting the latter from hostile counterattack and thus enabling them to mop up and secure the objective with a minimum of hostile interference.

l. Attack by fire.—When combat cars launch an attack by fire from suitably placed vehicles, the suddenness with which a fire attack is made is a most important factor. Care must be taken to see that a line of withdrawal is kept open.

92. Defensive action.—Since the combat car is essentially an offensive weapon, its employment in defensive action will develop into a series of offensive maneuvers.

a. Method of assault.—Assault by fire to force enemy deployment and quick raids against hostile rear installations will be the method normally employed. Assaults will also be made to relieve pressure against our defending lines. Although the action of the force to which the combat car element belongs is defensive, the action of the cars themselves is offensive.

b. Supporting elements.—Here again the combat car elements must have some assistance from reconnaissance elements, support by fire from machine-gun elements, and hostile antitank weapon neutralization by the supporting element. The supporting mortars may also aid the combat cars in breaking off an engagement by laying smoke in such a manner as to facilitate their withdrawal. While the reconnaissance element may be small compared to that employed with combat cars in the offen-

sive, the machine-gun element should be materially increased, for the machine guns must support the combat car attacks and also furnish protection behind which the cars may withdraw to re-form and reorganize preparatory to making another attack against the opposing forces.

93. Night operations.—*a. General effectiveness.*—Darkness reduces the effectiveness of the combat car. Its fire power, due to lack of visibility, is decreased. Mobility for the same reason is reduced. Protection of the crew by armor is the same as by day and, since hostile visibility is reduced, the crews are less likely at night to become casualties from fire than by day. Crushing power and shock are not impaired by darkness once the objective is gained.

b. In rear areas.—(1) These are the operations that are most handicapped by darkness. Marches on roads are made habitually without lights with the attendant reduction of speed. Surprise and road obstructions must be guarded against. Cross-country difficulties are increased. Careful reconnaissance should be made if a night operation is to be successful. Prominent landmarks must be carefully noted and remembered. A knowledge of the roads and trails of the area is desirable. Routes should actually be marked on the ground by white cloth on bushes, stakes painted with luminous paint on one side, etc. Guides may be sent out dismounted to establish control points. Column formations are recommended for the conduct of cross-country marches of small units at night. Such formations make it necessary for only the leading car to find its way with the others closely following. In the case of squadrons and larger units, parallel columns are used when the situation and terrain permit.

(2) If vehicles are moving to a jump-off position, the march should be carefully planned and coordinated so that the attack may be made without delay and full advantage may be taken of the concealment of movement afforded by darkness.

(3) In closing in the attack, lights may be used as the hostile position is reached, for otherwise losses in vehicles will be heavy in the ensuing mêlée. By turning on lights in the actual assault, danger of collision is averted and obstacles in the position, both natural and artificial, are avoided. When leaving the hostile position to proceed to the rallying point or to undertake further

operations against hostile rear installations, lights will be extinguished until the next point of actual contact is reached. Colored flares dropped from planes or launched from ground projectors may be used to indicate hostile strong points, artillery, reserves, and other installations.

SECTION VI

MACHINE-GUN SQUAD AND SECTION

94. Dismounted action.—The method by which the squad goes into dismounted action has been described in paragraph 34g. The section, if employed by itself, would also follow those methods.

95. Mounted action.—When the section is engaged in mounted action as a part of the platoon, it is controlled by the section sergeant acting under the direction of the platoon leader. While mounted action is not normal (except in rear guard formations) for the machine-gun troop, the section as a tactical subdivision of the platoon must be prepared to carry out the missions assigned by the platoon commander. At no time, however, during this type of action should the platoon become widely dispersed. Consequently, the conduct of the section is mainly one of fire control and interior discipline.

96. Combat missions.—*a. Advance guard.*—When the machine-gun troop is employed as the advance guard for the regiment, a section may act as the advance party. The point will consist of two motorcyclists attached from other elements of the troop. The section should march several minutes ahead of the support. Its functions are similar to those of the advance party in a horse cavalry advance guard. It should be prepared to act immediately against the enemy upon information from the point. It should prevent small enemy parties from getting between it and the support. If the enemy is encountered in strength, the section should occupy a position that will be of importance and value to the main body later in the combat. Whether or not the section should go into mounted or dismounted action depends entirely upon the tactical situation. For small dismounted enemy groups encountered along the road, mounted action could be employed, but for large enemy groups in prepared positions or advancing dismounted across country or on a road, dismounted action should be employed.

The advance party usually advances by bounds from one control point to the next, maintaining contact with the support by means of radio or motorcycle messenger.

b. Rear guard.—When the section is a part of the rear guard, it acts as the rear party. Its distance from the support depends largely on the terrain but should not be more than one mile. The rear point consists of two motorcyclists from other elements of the troop. In rear guard action, the section should usually employ mounted action to delay the enemy. In all other respects, its employment in tactical situations is similar to that of machine guns in horse cavalry units.

c. Reconnaissance.—In special situations, the section may be detached as a reconnaissance unit to ascertain enemy positions, flanks, lines of resistance, or to determine or discover information of value to our advancing elements. In this case, it must be prepared to meet hostile elements and break its way through to accomplish its mission. In a mission of this type, a rifle squad should accompany the section in order that it can perform missions of patrolling, scouting, and security as outlined in CFM, volume I.

d. Outpost.—When assigned to outpost duty, the section or squad follows the principles laid down for the platoon in paragraph 102 *b* (2).

97. Supply.—The section is entirely dependent upon its platoon headquarters for supply. The section sergeant is responsible for maintaining contact with his platoon headquarters.

98. Communication.—The section may receive messages from the platoon by means of motorcycle, flags, whistle, dismounted runner, and other visual signals. It can send a message by means of whistle, visual signal, and runner.

SECTION VII

MACHINE-GUN PLATOON

99. Armament and organization.—These are described in detail in section IV, chapter 2.

100. Characteristics.—*a.* The outstanding characteristics of a mechanized machine-gun platoon are great mobility and flexibility combined with heavy fire power. Its carriers are able to negotiate extremely rough country and approach very near to

any desirable dismounted position and then retire via sheltered routes to positions of safety until recalled for further movement.

b. In mounted action, accuracy of fire is necessarily lessened but a great volume of fire can be spread over disputed terrain either frontally or laterally as the advance progresses.

c. Halted action, mounted, will have frequent uses, such as in delaying actions, surprise during reconnaissance missions, and even during offensive combat. Such action is important in that it permits fire without loss of time in dismounting and mounting. The platoon commander employing such fire action must keep in mind the vulnerability of his vehicles, use skillfully all available cover, time his stay at one position, and select in advance his avenue of withdrawal.

d. A feature of the armament which provides vehicle guns in addition to the guns normally used on the ground is a precaution against a surprise attack on the parked vehicles, either from the ground or air.

101. Methods of attack.—*a.* Though primarily intended for dismounted action on its own stable tripod, the Browning air-cooled gun is capable of effective fire from the post mount fixed to the vehicle. Thus the machine-gun unit can make a fire attack while in motion. Such fire would have its effect while traveling across country, though its most probable use would come in case of surprise on a highway. A machine-gun unit, caught mounted, is still able to fire while it speeds to a more favorable position.

b. Where it is reasonably certain that there are no antitank weapons, machine-gun carriers with their gun crews can circle a village at fair speed while firing to the flank and be reasonably safe from enemy fire. Together with the idea of halted action mounted, mentioned in paragraph 100 c, this forms the basis of mounted action by a machine-gun squad or platoon. While occasions for its use in a deliberately prepared action will be rare, possibilities exist for its use in hastily prepared or sudden action on the road.

102. Combat missions.—*a.* Acting as a combat unit of the machine-gun troop, the platoon will be called upon to carry out such missions as the following:

(1) As a pivot of maneuver covering the advance or reorganization of other units.

(2) Holding or organizing ground already gained.

(3) Exploitation of success.

b. Since any of the above missions involve other units of the troop, a discussion of platoon tactics is better limited to platoon missions. Among such missions the following are invariably found predominating:

(1) *Acting as advance guard.*—(a) Acting as advance guard for a mechanized cavalry regiment or other similar unit, one or more platoons of machine guns are frequently used as an emergency advance guard when for any reason the original advance guard leaves the axis of movement. When this occasion arises the platoon gains its distance of at least 10 minutes at increased speed. It normally sends forward as an advance party one section with two attached motorcycles. The remaining section will constitute the support. When equipped with a radio command car, the position of the platoon commander is fixed with his radio car. When not so equipped, he can as readily be with his advance party, since communication will depend on motorcycle messengers and signal flags. In either case the advance guard as a whole must proceed by bounds from one control point to the next, which control points have been designated in the regimental march order. The advance guard commander will find it necessary to designate intermediate control points on which the march of his own advance party can be regulated.

(b) Flank patrolling other than a hasty reconnaissance of intersecting roads by motorcyclists is impracticable for the advance guard. Hence the advance guard confines its reconnaissance to the axis of movement and such road intersections as the situation and time permit. It will invariably establish a march outpost during halts, and at such times a deeper penetration to either flank by an observation unit is justifiable.

(c) Upon encountering small hostile patrols its normal action will be fire and movement; that is, mounted action. Dismounted action should not be undertaken unless the hostile strength compels it. When this situation exists the normal procedure might include a pivot of maneuver of the advance party (one section) and a maneuvering movement by the support to determine the extent of the enemy lines. If the enemy is too strong to be dislodged, this information should be passed

at once to the main body commander and a dismounted position taken up.

(2) *Acting as an outpost.*—This mission may be assigned to a machine-gun platoon at an overnight halt. The basic principles governing are those laid down in CFM, volume I, with the following modifications:

(a) Guns will be in dismounted positions covering all avenues of approach.

(b) Guns will be mutually supporting.

(c) Personnel and vehicles are as close to the line of resistance as available cover will allow.

(d) Normally all available guns will be on the line of resistance.

(e) Patrolling between elements of the outpost is continuous.

(3) *Acting as a rear guard.*—The general formation of advance guard, reversed, will apply, with the following modifications:

(a) Distances from main body will be much less, due to the mobility of the latter.

(b) Communication must be definite and accurate.

(c) Sections will ordinarily be leap-frogged to the rear, one section covering the withdrawal of the other.

(4) *On a reconnaissance mission.*—In conformity with such a mission, a fight will be resorted to only when necessary to secure the information needed or to get back with the information obtained. Consequently, deliberately prepared actions will be rare, and hasty action, usually a running fire fight, will be the rule. The formation adopted by a platoon of 5 personnel carriers and one or two motorcycles will be similar to that of a mounted patrol by horse cavalry. The leader should be somewhat in advance of his two sections, with the cars of each section echeloned 50 to 100 yards on one another. On the advance into hostile or unknown territory, at least two motorcyclists should accompany the command car, one of which will be reconnoitering 500 to 1,000 yards ahead, while the other is in reserve.

103. *Dismounted action.*—*a.* At the command *Action front (right) (left)*, the platoon leader indicates, with outspread arms, the line on which the guns go into position. Without further instructions, each section sergeant and corporal then

causes his gun squads to set up guns on that line, taking up the formation that secures the maximum amount of cover for the gun and crew consistent with their mission. (See fig. 43.)

b. Firing data are given first by the platoon leader and then by the section sergeant and repeated by No. 1 gunners. The firing line may be advanced either by section or by squads of two guns. The normal procedure is to advance by squad, covered by increased fire from the two guns of the other squad of the section. If the advance be for a considerable distance, this is accomplished by the commands: 1. ***Out of action***, 2. ***MARCH ORDER***. If only for a short distance, 1. ***Out of action***, 2. ***FORWARD TO THAT POINT*** will suffice. Fire is reopened as soon as the new position is reached to cover the advance of the other squad.

c. During the approach march to a position, any attached riflemen are employed as scouts some distance in advance of the squad or section columns. When fire has been opened from a given line or group of positions, they retire to the flank or flanks to act as combat patrols. This is especially important when one or two platoons are acting alone and have one flank exposed to hostile movement or the terrain lends itself to hostile infiltration and surprise.

d. The caliber .50 guns are only dismounted and used when specially ordered by the platoon leader. They are used primarily against enemy mechanization.

e. While the platoon is moving into a dismounted position, either deliberately or hastily prepared, the carriers, manned by the drivers under one designated man (usually the driver of the platoon leader's car), are conducted to cover in rear of the firing line or to one flank and slightly in rear of the position. Maintenance of contact with the firing line devolves upon this driver and, should the line move too far off, he selects a new position closer to the firing line and protected from sight and hostile fire. He details certain individuals to act as a message chain for communication between parked vehicles and the firing line, and to arrange for close-in defense of vehicles in some such manner as shown in figure 44.

f. Figure 43 shows the platoon using four caliber .30 machine guns and two caliber .50 machine guns. If eight caliber .30 machine guns are used, each of the two sections has the same

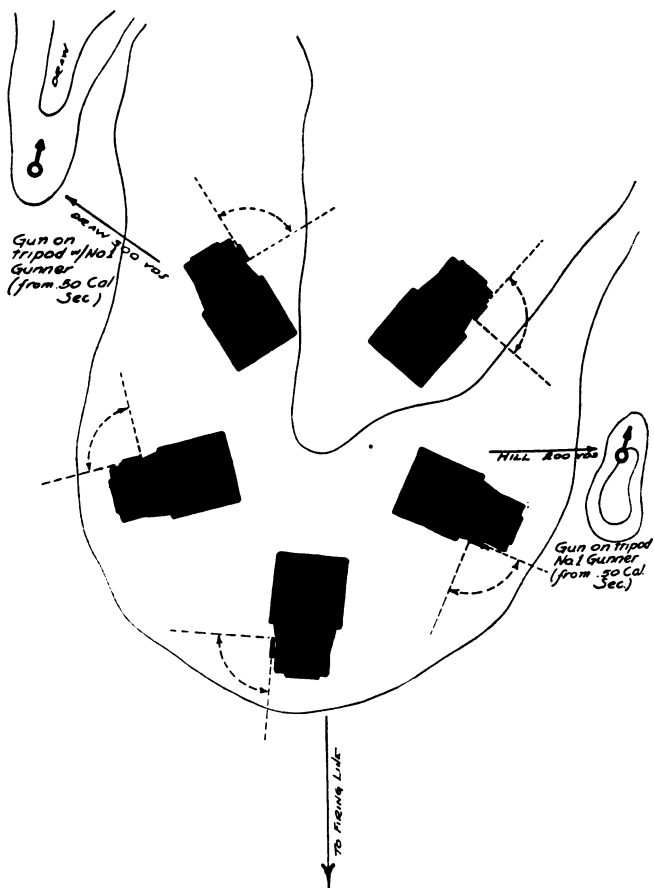


FIGURE 44.—Parked vehicles during dismounted action.

ground layout as shown for one section. If four caliber .50 machine guns are used, each of the two sections has the same ground layout as shown for one section.

104. Mounted action.—*a.* Designation of objective, assembly point, formation of vehicles, etc., being understood, mounted action is launched on a prearranged signal.

b. The duties of individuals in each platoon are as follows:

(1) *Platoon commander.*—He observes the situation and leads his platoon.

(2) *Platoon sergeant.*—He assists the platoon leader by observing formation of vehicles, fire effects as shown by bursts, and by correcting (by signal) any vehicle out of formation.

(3) *Section sergeant.*—He observes the course of his vehicles, seeing that they follow that of the platoon commander unless otherwise signalled; signals his gun corporals the exact time to open fire and to cease firing; and observes fire effect. He reports casualties or damage to vehicle or gun as soon as assembly point is reached.

(4) *Gun corporal.*—He is in direct charge of two gun crews, only one of which normally will be engaged in mounted action at any one time. Prior to launching the attack, he will assure himself that the guns to be used are functioning, that his gunners understand the approximate location of the targets, and that sufficient ammunition is on hand.

105. Supply.—*a.* The section sergeant, prior to the parking of the empty carriers, makes a quick estimate of the situation and designates the number of rounds he expects to be fired. He then causes a section dump to be established in rear of the firing position. It will be the duties of his No. 5's to supply the guns from this dump.

b. The platoon sergeant arranges for a platoon dump (which may be at the vehicles) and for attached riflemen (when not otherwise used on flanking missions or as scouts) to carry ammunition and other supplies between the platoon dump and the section dumps. In the absence of riflemen for this purpose, car drivers will be used.

106. Communication.—*a. Within the platoon.*—This will be almost entirely by flag and arm signals. Each section sergeant maintains visual contact with the platoon leader or platoon

sergeant and so places himself or a member of his section to insure contact.

b. With higher units.—When mounted, communication with other units is by motorcycle messenger, signal flags, or radio, depending on conditions. When in dismounted position, a runner or motorcycle messenger or signal flags are normally used.

SECTION VIII

MACHINE-GUN TROOP

107. Offensive action.—*a.* In attack, the regimental machine-gun troop supports the combat car elements by its fire, by constituting the secondary attack, or by performing certain defensive missions such as covering an exposed flank or covering ground unsuitable for combat car maneuvers but over which hostile attack may be expected. One or more machine-gun platoons may be attached to a combat car squadron. These machine-gun elements may support by fire alone or follow through after the combat car elements to occupy and organize the ground gained by the combat cars, to cover the reorganization of the combat cars, or, if necessary, their withdrawal.

b. After the assault of the combat car element is launched, the supporting fire of the machine-gun troop is eventually masked. The platoons are displaced forward, closely following the assault waves so as to allow the enemy no opportunity for counterattack prior to the consolidation of the position. The dismounted machine-gun platoons are so disposed as to lend mutual support to one another. The rifle platoon is placed to furnish flank protection or guard against isolated enemy groups. Machine guns advance deployed and prepared to fire mounted since they may normally expect to meet some disorganized resistance that has been passed over by the combat cars. The mopping up process may be left largely with the rifle platoon.

c. The order for the troop to displace forward is actually given by the troop commander, although the time of the displacement forward is decided by the regimental or squadron commander in command.

108. Defensive action.—*a.* In active defense, the framework of the defense consists of the machine-gun elements and the rifle platoon. These are usually disposed mutually supporting on a wide front with little depth. They are sited with relatively long fields of fire to cover the best available ground for combat car counterattacks either by penetration or envelopment. Normally, the machine-gun troop can cover about 1,200 yards. In open, rolling country this might be increased.

b. In passive defense, the machine-gun platoons and the rifle platoon form the framework of the defense.

c. In defense against mechanization, a system of wide and deep deployment of the caliber .50 guns mutually supporting one another is followed.

109. Security.—In advance guards and rear guards, the entire troop is seldom employed. Platoons are detached and assigned to support combat car units.

110. Rifle platoon.—The rifle platoon exercises the usual tactical functions of the cavalry rifle platoon.

111. Control.—The regimental commander maintains communication with the troop by means of radio and motorcycle messengers. Each platoon also has motorcycles.

112. Employment.—Care must be taken that the power of the machine-gun troop is not wasted on piecemeal assignments.

SECTION IX

MORTAR PLATOON

113. Mission.—Hostile antitank weapons properly disposed are capable of delivering destructive fire against mechanized attacks which are under observation over considerable stretches of open terrain. To meet this threat by denying observation to the enemy, there is included as an organic part of the mechanized regiment a highly mobile and flexible mortar of large caliber, capable of projecting smoke material sufficient to blind enemy observation. The primary mission of these mortars is to blind enemy observation and antitank guns with smoke whenever movement of combat elements is threatened. Hostile antitank weapons constitute the greatest menace to mechanization, and a smoke screen which interferes with the well-aimed fire

of the hostile antitank gunners on advancing assault echelons constitutes an efficient defense against hostile antitank weapons.

114. Weapon.—The 4.2-inch mortar carriage, T-5, has excellent cross-country mobility at slow speeds. Nevertheless, it cannot be expected to follow in trace of track vehicles without excessive loss of distance.

115. Shell fillings.—*a.* For peacetime training, on account of greater safety for firing personnel and the dangerous and destructive incendiary properties of white phosphorus, the chemical agent most widely used in smoke shell is FS, a mixture of chlorsulphonic acid and sulphur trioxide. In war white phosphorus is doubly valuable as a smoke agent, because in addition to greater smoke producing capacity, it has a tremendous casualty producing effect on personnel caused by its violent incendiary action.

b. In order to force masking of the enemy and to further harass and hinder him in the manipulation of his weapons, a certain percentage of tear gas, CN, should be included in all smoke screens. There will be some effect on friendly attacking troops, but this will be relatively slight in mechanized cavalry, due to speed of vehicles moving through the contaminated area.

c. The use in war of chemical agents other than white phosphorus or tear gas will be rare, as situations requiring the projection of mustard gas or phosgene will seldom occur with mechanized troops. Smoke shell with a small percentage of tear gas in the ammunition compartments of the mortar carriages should never be replaced by other ammunition, even temporarily, because the mortar mission demands that these weapons be prepared to establish and maintain smoke screens at any time.

116. Smoke screens and blankets.—*a.* The tactical uses of smoke for arms other than mechanized cavalry are discussed in chapter 8, BFM, volume I.

b. Speed is the watchword of the mortars of the mechanized regiment; speed in occupation of a position, accurate observation coupled with rapid and positive means of fire control, and speed in going out of action to escape hostile retaliatory fire; all must characterize mechanized cavalry mortar action.

c. To begin the adjustment of mortars, an initial salvo should be fired from the leeward flank with firing data calculated as accurately as possible. This salvo serves two purposes; it sets

base plates firmly and indicates corrections necessary in firing data. A verifying salvo should then be fired with corrected data, and, if satisfactory, the screen is then established by firing five rounds without time interval from all mortars. With a dense obscuring screen established, the method of fire is changed to maintain a screen at obscuring density without wasting ammunition. In a calm, the screen may be maintained by firing all mortars every 30 or 40 seconds. For firing with head or tail winds blowing, the time interval must be shortened as the velocity of the wind increases. For flank winds, one section firing at long intervals, or the windward mortar firing at frequent intervals, may be able to maintain the screen with an economical expenditure of ammunition. Constant practice in control of fire is necessary to insure an effective screen during the desired periods. To summarize, each firing problem may be considered in three phases: first, the adjustment phase, during which mortars are laid on the target and wind effect is observed; second, the placing of a large number of shell on the target in a short period to establish the screen quickly; and, finally, the maintenance of the screen as long as necessary with the minimum expenditure of ammunition.

117. Observation and fire control.—Accurate observation of shell impact area and rapid means of transmitting fire-control data are essential factors in laying an obscuring smoke screen on a target for any given period. The mortar officer must adjust the fire of six mortars quickly and accurately before observation is blotted out by his own smoke. The variable factors affecting smoke clouds which can only be determined by observation of the impact area are wind velocity and direction. By observation, it will often be possible to determine that one section firing on the windward flank of the target can screen a target which would require all six mortars firing in a head or tail wind. Allowing for time for flight of the shell and the time required for the smoke material to burn, a desired effect will be obtained approximately two minutes after firing and will be maintained for the same period after firing has ceased. In mechanized attacks, after establishing an obscuring screen, the mortar officer must calculate the speed of the attack from observation and must cease firing at such time that when the leading elements of the attacking force are close enough to the

enemy position for effective machine-gun fire, the screen or blanket of smoke has begun to dissipate. If mortar fire is continued until combat cars close with the enemy, the smoke will cause confusion in the attacking force and, by lowering visibility will lessen effectiveness of machine-gun fire from combat cars.

118. Communication.—*a.* Communication between the observation post and the mortar position must be rapid and reliable. The simplest and easiest means is radio, using portable short wave transceivers. These sets are reliable within the range limit desired, normally less than 1,500 yards.

b. The alternative means is the use of field telephones with wire laid from a breast reel. This method requires time to lay and reel up wire, which often cannot be allowed. In this case a mortar position must be selected close enough to the observation post for transmittal of firing data by voice.

c. It is not feasible to employ either messengers or signals to control the fire of six mortars, as messengers are entirely too slow for this purpose.

119. Coordination.—When the regimental commander issues the attack order, he prescribes the measures to be taken to coordinate the smoke screen with the attack. He may direct that the screen be established as soon as mortars are in position, at the same time informing squadron commanders that the attack will be launched as soon as smoke is laid. In situations calling for the attack to be launched at a certain time, the mortar officer regulates the screen to cover the target during the critical period. When the regimental commander does not wish to issue the final attack order, he may direct that combat elements take an assembly position prepared to attack on his order. In this case mortars are laid and, upon receipt of the order for the attack to be launched, the screen is placed. In any case squadron commanders will not ordinarily expose their squadrons in the open until an obscuring screen is placed by the mortars. As the extent of the smoke screens should be visible from assembly areas of combat car squadrons, there should be little difficulty in deciding the moment to launch the attack.

120. Reconnaissance, selection, and occupation of positions.—*a.* Having been assigned a smoke mission in a combat situation, the mortar officer is confronted with the problem of

selecting and occupying a position without delay. Accompanied by the reconnaissance sergeant and the driver of the command car, he proceeds to select a defiladed firing position close to the route of march with the target well within range of the mortars. This position should not be so far to a flank that it is vulnerable; usually a position can be selected some distance in rear of the supporting ground machine guns, which will afford the necessary security. The mortar officer indicates the selected position and the target to the reconnaissance sergeant who sets the aiming stakes on the line mortar-target. The observation post is then selected and the driver directed to establish communication, either by radio or telephone, with the mortar position. In the meantime the motorcycle messenger has been dispatched to the platoon sergeant who remained with the platoon in the column or the forward assembly area with instructions to lead the platoon to the mortar position. The reconnaissance sergeant, having set the aiming stakes, meets the platoon sergeant and shows him the firing position and the aiming stakes. The platoon sergeant directs section sergeants to go into action on the indicated lines. The motorcycle messenger assists in establishing communication with the observation post and remains at the firing position as radio or telephone operator. The mortar officer and the reconnaissance sergeant proceed to the observation post and compute firing data. When the platoon sergeant reports all mortars in order, the firing data are transmitted and the fire is controlled by the mortar officer from the observation post.

b. If the situation demands hasty action, mortars may be laid by aiming vehicles at assigned targets by means of the aiming rods. Obviously, vehicles will be more exposed in these open positions and casualties are likely to result. Full advantage must be taken of low brush and slight folds in the ground to break up the outline of the mortar carriages when mortars must be emplaced for direct fire. Some protection is offered by driving vehicles up a reverse slope just far enough to sight with the aiming rods over the crest. Aiming stakes may be modified by installing a swivel socket in the center of each stake. To use these it is only necessary to drive one stake for each mortar just below the crest on the reverse slope. On top of each of these stakes is set another stake equipped with a

socket. This horizontal stake is then turned until it points at that portion of the target on which its mortar is to fire. Mortar carriages are able to drive on the line indicated by these short stakes with accuracy. Time of setting stakes may still further be reduced by setting a stake for the center mortar only of each section. The flank cars in each section drive into position after the center mortar carriage is placed, angling off so that lines of sight of these cars diverge from that of the center car by 10° (180 mils). At 1,500 yards range, for example, the section would be covering over 500 yards of front. After the initial salvo, individual pieces may be adjusted if they are too far off the target.

c. An alternate position must always be selected so that after any action the platoon may be rapidly moved to escape hostile artillery fire.

121. Attachment of sections.—Whenever squadrons are given combat missions requiring operation at some distance from the remainder of the regiment, supporting machine guns with one section of mortars are normally attached in order to permit independent efficient combat operation by the detached squadrons. If one squadron only is detached from the regiment, one mortar section, under its section sergeant, may be attached to the squadron. The remainder of the platoon is then retained under regimental control. If both squadrons are given missions requiring attachment of supporting weapons, the platoon, less one section, may be attached to one squadron with the remaining section attached to the other squadron. Section sergeants operating with detached squadrons have no means of communication and no separate command vehicles. Consequently, they must be always on the alert to keep themselves informed as to the situation. Section sergeants must exercise their own judgment in selecting proper targets and laying screens at the times desired. Insofar as practicable, in all section actions, procedure conforms to that of the platoon. Without radio or telephone communication within the section, the section position must always be selected so that the observation post is within voice range of the firing position in order to permit fire control. With fewer facilities, the section must function covering the squadron in action as the platoon functions covering the regiment.

122. Ammunition supply.—*a.* The compartments of each mortar carriage have space for 46 rounds of shell, making a total of 276 rounds for the platoon, carried on mortar carriages. As replacement of expended ammunition will always be uncertain, it must be conserved in every action. The supply of shell carried in the ammunition compartments of the mortar carriages is sufficient to place three separate 5-minute screens on an enemy position 1,200 yards long under unfavorable wind conditions. It should seldom be necessary to maintain a screen for longer than 5 minutes because this period gives ample time for combat car squadrons to leave covered assembly positions well out of effective range of enemy anti-tank guns, traverse open terrain under cover of smoke, and make the final attack on the enemy position as the smoke cloud begins to dissipate.

b. After each action, the first opportunity must be taken to replenish ammunition supply. Trucks from the combat train should be sent as far forward as possible to reduce the time mortars are out of action while refilling with ammunition.

SECTION X

COMMUNICATION PLATOON

123. General.—*a.* Command of a mechanized unit can be exercised to the fullest possible degree only when an adequate, well organized, and efficient system of signal communication is available to the commander.

b. Mobility tends to introduce a considerable degree of dispersion between units with resultant difficulty of control. In sustained action, dispersion may increase, which precludes the use of some of the generally accepted means of signal communication and requires modifications, particularly speeding up, of those agencies which are adaptable.

124. Signal communication system.—*a. Responsibility.*—The commander of each tactical unit is responsible for the establishment of signal communication within his own unit and with certain other units in accordance with the provisions of AR 105-15.

b. Control.—(1) The commander of each tactical unit exercises control over the signal communication systems of his own

and subordinate units to the extent necessary to assure coordination within the command and adjacent units.

(2) The unit commander normally exercises tactical control of signal communication through his plans and training officer (S-3) who verifies the plan for the employment of signal communication to see that it meets the needs of the tactical situation.

(3) Technical control is exercised through the communication officer who is responsible for details incident to the proper functioning of the unit signal communication system.

125. Signal communication required.—The operations of a mechanized cavalry regiment or brigade will frequently be so varied that it is difficult to prescribe any definite requirements. Certain arbitrary changes must be made in the accepted methods of operation of communication in mechanized cavalry. The following should be accepted merely as a general guide:

a. Long range communication (over 50 miles).—(1) Brigade commander to next superior.

(2) Brigade commander to brigade reconnaissance elements (air or ground).

(3) Brigade commander to regimental and artillery commanders.

(4) Regimental commanders to regimental reconnaissance (air or ground).

(5) Regimental commanders to motor maintenance.

(6) Reconnaissance troop commanders to their platoons and sections.

(7) Artillery reconnaissance (personnel accompanying ground reconnaissance units) to artillery commander.

b. Medium range communication (estimated as 50 miles maximum).—(1) Brigade commander to rear echelon.

(2) Regimental commanders to squadron commanders.

(3) Regimental commanders to trains.

(4) Artillery command.

(5) Artillery reconnaissance (air and ground).

c. Short range communication (estimated as 15 miles maximum).—(1) Regimental commanders to machine-gun and mortar commanders.

(2) Squadron commanders to troop commanders.

(3) Artillery commander to rear echelon.

(4) Battery fire control.

d. Close-in communication (estimated as 3 miles maximum).—Troop commanders to platoon commanders, except reconnaissance troop.

126. Available agencies of signal communication.—Reliance is not placed solely upon any one means. If the principal agency fails, there is always available some supplementary means of signal communication.

a. Wire.—The combat characteristics of mechanized cavalry preclude the laying of wire, except for the mortar platoon and artillery component; however, full use should be made of commercial installations when operating in friendly territory. Mechanized artillery and the mortar platoons carry a limited supply of wire and are prepared to lay it if the situation indicates.

b. Sound signals.—In combat, sound signals, such as a burst of machine-gun fire or the sounding of the vehicle horn, may be used, but their application is very restricted, as they cannot be considered reliable signals.

c. Visual signals.—The use of visual signals is essential in mechanized units of the size of a troop and smaller. The restricted observation offered by the eye-slits of mechanized vehicles constitutes a definite limitation. Furthermore, to be reliable, a visual signal must be composed of the minimum number of elements, all of which must be displayed concurrently until acknowledged. Other factors operating to the detriment of good observation are dust, smoke, fog, darkness (except in the case of pyrotechnics or lights), terrain, and woods. The following methods of transmitting visual signals will be considered under the headings: pyrotechnics, flags, semaphores, and lights. Panels, while strictly a visual signal, will be discussed in *d* below.

(1) *Pyrotechnics.*—The objection to the general use of pyrotechnics is that only a very few meanings can be assigned. At present, there are only two general types of pyrotechnics available; the ground signal, discharged from projector MK1, and the position light.

(a) The ground signal, equipped with a 3.5 second delay fuze, rises to a height of some 400 feet before it ignites. The parachute signals burn for 25 seconds and the star cluster for 5 seconds. It is not suitable for use between small units separated

by a few hundred yards, as it rises out of the line of vision before it ignites. It may be used between squadrons and regiment, or regiments and brigade, when separating distances do not exceed the range of visibility. Another objection is that to insure being seen by a unit located at some distance, it should be fired from a previously designated point. Frequently, this point cannot be definitely foreseen in a moving situation. Its use between ground troops is normally restricted to an emergency and as a supplementary signal from attacking troops to the artillery "to lift fire." It can be used from ground to plane, by previous arrangement, to acknowledge a signal or message.

(b) The use of position lights, other than from ground to plane, for identification of units is not practicable.

(2) *Flags*.—The use of hand flags (not semaphore or wigwag) is the most satisfactory visual signal for use in lower units. Four basic colors are used; red, white, blue, and yellow, and no signal requires the use of more than two flags. Squadron flags are approximately 16 by 18 inches, and the troop and platoon flags are approximately 14 by 16 inches. The handle is about 8 inches longer than the fly of the flag. They are displayed by hand, thrust up through the top of the turret.

(3) *Semaphores*.—This method of signaling has advantages in that it can be operated from the interior of the vehicle. The disadvantages are that the number of signals must be restricted and that the semaphore may be knocked off when traversing woods or shot away during combat.

(4) *Lights*.—Colored lights displayed outside and operated from the interior of the vehicle are used as a means of visual signaling between the smaller units. Green, red, and amber have good daylight visibility and when used separately and in combinations furnish seven positive signals.

d. Air-ground communication.—Frequently, observation aviation, and at times pursuit and attack aviation, will work in conjunction with mechanized units. Extensive joint training and continued liaison are most essential. Two-way radio is normally employed and the plane will operate on the frequency of the particular unit with which it is working. When radio fails, certain other methods are practicable; such as plane to ground—dropped message, pyrotechnics, or wing signals; ground to plane—panels, pick-up messages, or pyrotechnics.

(1) *Panels*.—The regulation type AP panels are used for communication from stationary ground units to plane but are not practicable while the unit is moving. Improvised streamer panels 2½ feet wide by 6 feet long, in various readily discernible colors, are used for identifying moving units and to indicate to the plane where a message is to be dropped. If necessary to transmit a message by panels, the current air-ground liaison code is employed. If the unit is moving, the vehicle carrying the unit panels (usually the unit communication officer's vehicle) falls out, transmits his message, and regains position at the first opportunity. One or more motorcyclists remain with the communication officer to deliver messages to the unit commander.

(2) *Pyrotechnics*.—Planes utilize pyrotechnics to call for "identification" or "repeat," or as an "acknowledgment," employing them only when other means are not at hand. Stationary ground units may use the projector with ground signal or position lights.

(3) *Wing signals*.—"Zooming" and "rocking wings" are plane signals which are readily distinguishable by ground troops. "Wagging the tail" is sometimes difficult to detect unless the plane is directly overhead. "Blipping" or "gunning" the motor (sound signal) is very difficult to detect from a moving vehicle and practically impossible from a track vehicle.

(4) *Dropped messages*.—Frequent recourse to dropped messages will be had by cooperating aviation. Even when radio is functioning it may be desirable to drop a marked map or sketch. When dropping messages to a moving mechanized unit the plane calls for the display of identification and then drops the message pouch in the path of the identified vehicle and about 300 to 500 yards in advance.

(5) *Pick-up messages*.—Units the size of a mechanized squadron or larger are normally equipped to handle pick-up messages. Smaller units assigned to independent missions are also equipped prior to their departure.

e. Radio.—Radio is the means of signal communication which most closely approximates fulfillment of the need of mechanized units for a reliable and flexible agency. It is very fast and is independent of road conditions. The radiotelephone enables commanders to hold personal conversation with their subordinates and superiors.

(1) *Practical considerations.*—The following considerations are of importance to all mechanized cavalry unit commanders down to include the car commander :

(a) In order that radio transmissions may be kept to the absolute minimum consistent with the proper dissemination of orders and information, commanders must give their subordinates all possible information and instruction prior to their assignment to a mission. Each subsequent contact should be utilized to acquaint them with developments in the situation.

(b) Practically all radio vehicles operate more efficiently when halted. If the command is not halted and if tactical considerations permit, the radio vehicle should pull to one side and halt in an advantageous location during the period of operation, then regain its position without unnecessary delay. All other factors being equal and a choice afforded, higher ground should be selected, particularly when distances approach the range limit of the set. The following locations should be avoided if possible :

1. Close proximity to another radio vehicle, if it is operating.
2. Very low ground.
3. Locations in the vicinity of commercial circuits, particularly power lines, factories, farms, or buildings where there are presumably motors or other electrical equipment.
4. High buildings, particularly those of metal construction.
5. Heavily wooded areas and, when wet, any trees or high bushes.

(c) Long distance operation will be facilitated if it is possible to halt and permit the operator to set up a larger antenna. The short fishpole antenna will operate most efficiently when vertical. It is pulled down, however, when traveling and all possible precautions should be taken to prevent damage to the antenna. The loss of a section of the antenna will materially impair the efficiency of the radio set. The operator is cautioned to pull down the antenna when traversing underpasses and particularly through the smaller towns where electric light and telephone wires or cables cross the road with low clearances.

Drivers should also be instructed to turn out in order to avoid overhanging branches when this procedure does not interfere with traffic.

(d) Car commanders of radio equipped vehicles should know their unit call sign, wear headphones whenever practicable, and be sufficiently familiar with the principles of radio procedure, use of the microphone (for voice transmission), and the fundamental controls of the radio set so that they may operate by voice in an emergency. They should also be sufficiently familiar with the duties of the operator to know whether he is maintaining the proper records. They should inform the operator regarding the car commander's name, the name of the second in command, and the numerical and tactical designation of the unit (if any); that is, advance guard, patrol, reserve, etc.

(e) If vehicular trouble develops, or the radio fails to function properly, the car commander should not hesitate to transfer to another radio vehicle and take it over as his command vehicle. The old call is given to the new operator who is then instructed to take all calls for that station.

(f) To facilitate the transfer of radio sets from one vehicle to another when necessary and to reduce interference throughout the command, all vehicles in mechanized units should have—

1. Complete shielding and bonding.
2. Twelve-volt ignition systems, with 180 ampere-hour batteries (or larger) and 50 ampere generators.
3. Mounting brackets for radio set.

(2) *Disadvantages.*—(a) Radio has certain inherent disadvantages:

1. It is not secret.
2. It is subject to serious interruption by static.
3. It is capable of being disrupted by intentional interference from hostile stations or by unintentional interference from friendly stations failing to operate on their proper frequency.
4. A high degree of training is a prerequisite of operating and maintenance personnel.
5. Other radio sets operating in nearby vehicles may cause "blocking" of the receiver.

(b) When radio is employed to furnish communication between moving vehicles, the above disadvantages are complicated and augmented as follows:

1. The operating range is greatly reduced due to the necessity of using a relatively inefficient antenna.
2. Serious interference is caused by the ignition system of the motor unless properly shielded. In the case of track vehicles, track static may be developed.
3. Unshielded motor vehicles in the vicinity produce additional interference.
4. Commercial power lines, cables, etc., along the road cause interference and fading.
5. The necessity for movement frequently precludes the selection of favorable locations with respect to terrain.
6. The swaying and pitching of the vehicle in cross-country work greatly increase the difficulties of the radio operator.
7. The equipment is frequently impaired by quantities of dust and moisture to which it is frequently subjected.
8. The limited space adds to the operator's problem.

(3) *Frequencies, nets, and call signs.*—The number of radio sets required to furnish the essential communication at any time and their grouping into nets to insure the most efficient operation will vary with the particular mission upon which the unit is engaged. Sets in sufficient numbers are provided to meet all normal needs but the number of active sets should be restricted to those absolutely necessary and the use of the radiotelephone should be limited to the most important transmissions.

(a) *Frequencies.*—Efficient operation demands that a radio set must operate on a definite frequency. (Frequency is expressed in kilocycles, abbreviated KCS.) It is essential that operators exercise great care in keeping their sets tuned to the specified frequency. There must be a certain separation between frequencies in order that sets on one frequency can operate without interfering with sets on an adjoining frequency. Theoretically, sets using continuous wave (CW) transmission can operate with a 20 KCS separation while sets using radio-

telephone (voice) require a separation of 50 KCS to avoid interference. Therefore, in a band of 1,000 KCS there should be 21 voice channels or 51 CW channels. With present equipment, however, due to a certain lack of frequency stability, greater separation, particularly between voice channels, is necessary to obviate interference.

(b) *Nets*.—The radio sets of units which normally communicate with each other are grouped into one net, all sets in the net operating on the same frequency. The net control station (NCS) governs the operation of the other stations in the net. It is not desirable to assign the set in the command car of the mechanized brigade, regimental, or artillery commanders to act as the normal NCS, as the commander should be free to leave or enter any net at any time. However, that set automatically becomes NCS whenever it reports into any net which is under the direct control of the commander. The mission of the unit will determine the tactical dispositions which in turn indicate the number of nets needed. If available frequencies do not permit the desirable number of nets, two or more nets will be consolidated. The efficiency decreases rapidly after the number of stations in the net increases beyond six. It is possible to offset this loss of effectiveness somewhat by maintaining a rigid net discipline, using proper radio procedure, silencing certain of the less important stations, and finally, by suppressing all unimportant transmissions. Figure 45 is a diagrammatic representation of the usual maximum number of tactical radio nets which are required by a mechanized cavalry regiment. The diagram will change as the number of sets in the regiment changes. In addition to the twelve nets of the two mechanized cavalry regiments, a mechanized cavalry brigade may require—

Brigade command net.

Brigade reconnaissance net.

Brigade air-ground net.

Brigade administrative net.

The mechanized artillery component (assuming four batteries) may also need—

Artillery command net.

Four battery fire-control nets.

Liaison net.

Two air-ground nets.

This does not include the nets in which ultra-high frequency sets may be used.

(c) *Call signs.*—The stations in a net are identified by call signs. These are groups of two letters (or two letters and numeral) used to distinguish one station from another. Call signs are assigned by higher authority and are changed periodically to deceive hostile intelligence stations.

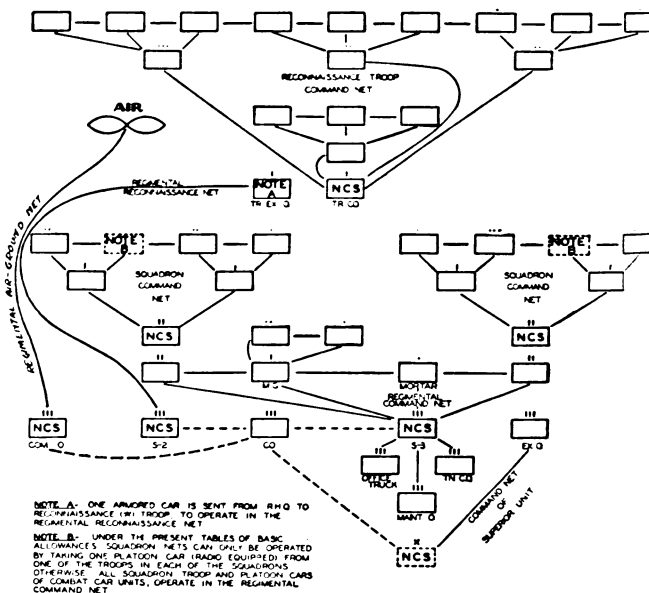


FIGURE 45.—Tactical radio nets (maximum net requirements, mechanized cavalry regiment).

f. *Message centers.*—(1) *Functions.*—(a) The principal functions of the message center in mechanized cavalry units are to—

1. Coordinate the use of the various means of signal communication.
2. Maintain accurate records of messages.
3. Handle cryptography when necessary.
4. Operate the messenger service.

(b) The message center operates continuously during active operations under the control of the communication officer with the message center chief directly in charge.

(2) *Procedure for mechanized units.*—(a) In mechanized units, conditions vary to such an extent that major modifications in accepted message center procedure become necessary. When the command post is stationary, one type of message center procedure is applicable; when the unit is moving, the operating procedure is modified. For example, when the unit is moving, brigade S-3 may be operating in the command net, S-2 in the reconnaissance net, and the communication officer in the air-ground net. All of these staff officers who represent the commanding officer are functioning in separate radio nets and separate vehicles. Each must handle his own traffic, transmitting by motorcycle messengers such messages as are necessary to the commanding officer wherever he may be located at the time. It therefore follows that each of the above-named staff officers should have available for his immediate use one or more motorcycle messengers. In this particular case it is necessary for each of these staff officers to assume certain message center functions.

1. Selection of the means of signal communication to be used.

2. Maintenance of records of messages.

(b) A necessary violation of the normal message center procedure is in the matter of messages sent in clear. Regulations prescribe that all messages sent by radio be cryptographed unless the commanding officer (or his authorized representative) designates, over his signature, "Send in clear"; whereupon message center personnel (or radio personnel in the case of "simplified procedure") do the necessary cryptographing. In mechanized units, the large majority of messages are sent in the clear and, if cryptographing is necessary, the originator does it.

(3) *Principles involved.*—(a) In mechanized units, no message center procedure is adaptable which will tend materially to slow up the transmission of messages or delay the operations of the unit.

(b) Additional principles which govern the operation of message centers in mechanized units are as follows:

1. The best means of signal communication should be employed.
2. There should be a definite "follow up" of outgoing messages.
3. There should be a complete record of delivery.
4. Responsibility for the above should be fixed.

(c) In a moving situation the matter is comparatively simple. The staff officer concerned, having only one channel of radio, decides whether it or a motorcycle messenger is the best means, and is responsible for the "follow-up" and supervision of the maintenance of records of delivery. When the unit is halted and the command post established, the normal message center procedure should be approximated as closely as conditions permit.

(d) Since a large percentage of the traffic will be by radio, the operators incorporate the necessary basic information in their log books. However, in moving situations, the continuity of records cannot be maintained unless the responsible officers furnish the radio operator with copies of all messages. This not only includes the normal radio traffic but also messages sent by motorcycle messenger and radio messages transmitted (generally by voice) by the officer himself. Operators are instructed to copy the voice transmission of officers in their logs, but due to the swaying and pitching of the vehicles and the tendency of some officers to talk faster than the radio operator can copy, it is difficult to comply with these instructions.

(4) *Provisional procedure for mechanized units.*—(a) *Duties and responsibilities.*—The communication officer, commander of communication platoon, communication chief, or message center chief may handle the duties as outlined for the message center chief. The above personnel, by virtue of their work, training, and capabilities, are in the best position to know what means of signal communication is most expedient and effective at any particular time. However, any officer may, if it will expedite transmission, assume the duties as outlined for the message center chief at any time. When he does so, he also assumes all responsibilities of the message center chief and, therefore, must at the first opportunity report all messengers who have been

dispatched, together with all pertinent data, to the message center chief. At the end of the day's business (midnight in extended operations), all logs and copies of messages are collected from radio operators by the communication chief and turned over to the communication officer. He in turn hands them to the unit S-3. Other staff officers turn over their retained copies directly to S-3.

(b) *Incoming (received) messages.*

1. *Radio.*—The radio operator copies, in duplicate, the incoming message on a message blank. He enters a serial number (from his operator's number sheet), time received, and the call letters of the transmitting station. In the station log he notes "time," "from," "to," and enters "NR — rec'd" (filling in the number he has assigned to the message). He hands both copies to the addressee, if present; if not present, to the messenger (car driver) who takes them to the addressee. The addressee (or his representative) retains the original, and on the duplicate enters time and initials and hands back to messenger, who returns duplicate to operator. The radio operator then files it in the message pouch of his log book.
2. *Messenger.*—The messenger (generally motorcycle, except as indicated above) delivers the message directly to the addressee (or his representative), who keeps the original message, and on the message envelope (or delivery list or duplicate message) notes time, initials, and hands back to the messenger, who returns this receipt to the person who instructed the delivery of the message.
3. *Dropped message.*—All dropped messages are delivered to the commanding officer (or his staff representative), who is responsible for the document. Time of receipt and initials of recipient should be entered on the face of the message as a matter of record.

(c) *Outgoing messages.*—The originator writes the message in duplicate, encoding it if necessary.

1. *Radio.*—In a moving vehicle, the original message is handed to the operator while the duplicate is re-

tained by the originator. If at a stationary command post, both copies are handed to the message center chief, who sends the original to the proper station for transmission, retaining the duplicate to follow-up and verify receipt. In either case the radio operator enters the proper serial number (from his operator's number sheet) on the message, together with the call letters of the station to which it is to be transmitted. He transmits the message, makes the proper entries in his log, together with the notation "NR — sent," enters the time of acknowledgment at the bottom of the message, files in his message pouch, and notifies the originator or the message center chief that delivery was accomplished at — (giving time). The message center chief enters the time acknowledged on the duplicate copy and returns it to the originator. If unable to transmit the message within a reasonably short time, operator notifies the message center chief to that effect, and the latter, if unable to accomplish expeditious delivery by some other means, requests instructions from the originator.

2. *By messenger.*—In a moving vehicle the originator calls up a motorcycle messenger, hands him the message (in a message envelope properly filled in), and gives him the necessary instructions regarding delivery. At a stationary command post the originator gives both copies to the message center chief who encloses the original in a message envelope and hands it to the selected messenger. He retains the duplicate as a follow-up until the messenger returns with the receipt. He then attaches the receipt to the duplicate and hands both to the originator.

(5) *Messengers.*—Messengers are indispensable to the efficient functioning of the signal communication system of mechanized units.

(a) Runners are used within the command post limits when units are halted. Staff officers, car drivers, or any other available personnel are used for this purpose.

(b) Messengers in vehicles are used—

1. When motorcyclists are not available.
2. When the situation is such that more than one man should make the trip; that is, when the trip is extremely long and fatiguing, or when operating over unfavorable terrain or in hostile territory.
3. When subjected to hostile fire. In this case the use of an armored vehicle is indicated; otherwise it may be a passenger car, light truck, or impressed motor vehicle.

(c) Motorcycle messengers are the principal class of messengers used and are available in all units. They, together with radio, constitute the two principal means of signal communication in mechanized cavalry units. On narrow, sandy roads, or when roads are slippery, they are subjected to certain delays or accidents, but as a reliable and relatively fast means of signal communication they are indispensable. One of their very important duties on the march is the passing of messages from one staff car to another when these cars are not in the same radio net.

(d) Messengers must be given explicit instructions regarding delivery of messages. They should be told—

1. To whom to deliver the message.
2. Where to go.
3. Route to follow.
4. Rate of travel.

(e) Messengers wear red brassards on their left arm above the elbow and, if not equipped with a message pouch, carry their messages either in the upper left-hand coat pocket or the left-hand shirt pocket.

(f) In mechanized cavalry units it will seldom be practicable to operate scheduled messenger service except in bivouac. Special messengers will be the rule rather than the exception. Special messenger service tends toward the speedy dissipation of personnel and is very fatiguing; therefore care is exercised not to send motorcyclists on unnecessary trips. This provision should not be construed as a restriction when the situation indicates the use of double messengers to be desirable.

(g) Full use should be made of incoming messengers to return replies, etc., to the unit from which they came. Such a

messenger should not be held unduly long for this purpose, otherwise the unit sending the message will be uncertain regarding its delivery, and that unit will be deprived of the use of its own messenger during the time of his absence. Such a messenger should never be diverted to another unit unless the latter is located on the return route, and the delay incident to the delivery of the message will be negligible. It should be noted that if such a messenger is utilized no acknowledgment of message delivery can be expected, as the messenger must be free to continue on to his own unit.

(6) *Codes and ciphers.*—(a) There are certain general rules which govern the use of codes and ciphers. Among them are the following :

1. Care should be exercised to prevent the loss or compromise of a code. If lost or possibly compromised, the fact should be reported immediately to higher headquarters.
2. The use of the particular code should be understood and coordinated by all employing it.
3. A message sent in code should never be repeated in clear, and vice versa. If repetition is necessary, the wording should be changed.
4. Never mix secret and clear text in the same message.

(b) The following practices have been developed in mechanized cavalry units in order to expedite transmissions :

1. It is assumed that all messages sent by radio will always be intercepted.
2. The originator (not the message center personnel or radio operator) is charged with the cryptographing of any message the contents of which are secret. The originator, invariably an officer or noncommissioned officer (generally the former), is authorized by the commanding officer to send in clear such messages as he deems to come under the provisions of paragraph 116, BFM, volume IV. His signature on the message, under the statement "Send in clear," constitutes the authorization "Send in clear." Radio operators are trained to transmit the message exactly as written.

3. All information regarding hostile dispositions is normally sent in clear. The time gained by not cryptographing is far more important to the commander than is the fact that the enemy may have thus gained this relatively unimportant information. The tactical situation will indicate the exceptions.
4. For regulations governing signal communication and cryptographic security, see AR 335-5.
5. The division field code and individual cipher device (M-94) are carried by all units down to and including the squadron for use when operating in conjunction with other arms employing this code. For use within the regiment and in order to avoid compromising the current division field code, recourse may be had to special codes.
6. The current air-ground liaison code and fire control code (for artillery) are used for communication with cooperating aviation and in all other cases where their use will not greatly delay the transmission of messages.

(7) *Special codes.*—Special codes are employed to expedite the transmission of messages and for secrecy. Such special codes are simple and brief. Three types are normally used—special geographical code, special coordinate code, and special message code. Such codes are changed frequently.

127. Employment of signal communication personnel.—*a. Organization.*—The signal communication personnel of the mechanized brigade and regiments are organized into communication platoons normally under the command of a lieutenant.

(1) The platoon is organically a part of headquarters troop and, from the standpoint of administration, supply, discipline, and basic training, is under the immediate control of the troop commander.

(2) The technical and tactical employment of the platoon is controlled by the communication officer, who is directly responsible to the brigade (or regimental) commander.

b. Functions.—(1) The general function of the platoon is to handle the installation, operation, and maintenance of the signal communication system of the unit.

(2) The personnel falls naturally into three groups, exclusive of the essential supervisory personnel:

- (a) Message center personnel, including messengers.
- (b) Operative personnel.
- (c) Repair and maintenance personnel.

c. Employment.—Due to the fact that radio and messengers are the principal means of signal communication in mechanized units, the tactical employment of the communication personnel seldom varies. The operation of the message center and utilization of messages have been covered in paragraph 126 f.

(1) Radio operators from the communication platoon are assigned to operate the radio sets of the command.

(2) In addition to their basic assignment, the radio operators must also keep certain message center records and must be trained to function as assistant gunners if their vehicles actually become engaged in combat. In their capacity as radio operators, they must be highly trained technically, for they work with the minimum of technical supervision and they have no assistant operator to relieve them.

(3) The repair and maintenance personnel are employed under the instructions of the communication officer and the immediate direction of the communication chief. In major cases of failure the ideal method in the field and, if the command is moving, the only practical method, is by unit replacement.

d. Echelons of repair and maintenance.—The duties of the various echelons are furnished only as a guide. Further experience will indicate the necessary additions and changes.

(1) *First echelon.*—Operator—

- (a) Replaces defective tubes.
- (b) Replaces defective fuzes.
- (c) Tightens external connections.
- (d) Cleans set.

(e) Reports set failures and cases of malfunctioning.

(2) *Second echelon.*—Communication platoon; regiment—

- (a) Tests tubes.
- (b) Solders defective connections.
- (c) Tests and replaces defective cords, plugs, head sets, microphones, and other auxiliary equipment.
- (d) Tests and replaces dry batteries.
- (e) Charges auxiliary storage batteries.

- (f) Cleans shielding.
- (g) Replaces defective antenna bases.
- (h) Replaces shock absorbers and snubbers.
- (i) Tightens and replaces nuts, bolts, studs, etc.
- (j) Tightens all internal connections.
- (k) Cleans interior of set with blower.
- (l) Coordinates with motor maintenance section regarding necessary repairs, replacements, and adjustments in connection with vehicular ignition system, to include—
 - 1. Ignition wiring, shielding, and bonding.
 - 2. Generator and cut-out relay.
 - 3. Starting motor.
 - 4. Distributor.
 - 5. Coil.
 - 6. Voltage regulator.
 - 7. Spark plugs.
- (m) Checks all connections and tests set whenever radio vehicle returns from shop (troop, regimental, quartermaster or ordnance).
- (n) Makes weekly check of vehicular storage batteries to insure satisfactory radio operation.
- (o) Makes monthly inspection of all sets.
- (3) *Third echelon.*—Brigade radio repair section—
 - (a) Makes major repairs such as replacement of condensers, relays, transformers, jacks, tube sockets, etc.
 - (b) Repairs loud speakers.
 - (c) Aligns receivers.
 - (d) Calibrates transmitters.
 - (e) Makes initial installations.
 - (f) Rewires sets when necessary.
 - (g) Makes quarterly inspection of radio equipment including complete check of filters, shielding, and bonding. Probe antenna to be used in connection with this check.
 - (h) Handles replacement of all defective signal equipment and accessories on certificates, thus eliminating inventory and inspection reports in all subordinate units.
- 128. Plans and orders.—*a. Paragraph 5 of field order.*—The reference to signal communication is normally included in the last paragraph of the field order. In a formal written field order this is paragraph 5.

(1) In a complete order of one of the larger units, paragraph 5a refers to the signal communication annex or to the index of signal operation instructions; paragraph 5b announces the axes of signal communication; and paragraph 5c announces the command post of the unit and prescribes the locations of the next lower units.

(2) In the orders of mechanized cavalry units, it is seldom necessary to include all of the above details, although this information will vary with the situation. If the command was to move immediately, paragraph 5 might read:

"Signal operation instructions No. 3 will govern.
Messages to the head of the main body;"

or, if to move after a certain period of delay:

"Signal plan 'B' will govern.
Messages to Fort Knox until 9:00 a. m.; thereafter to
the head of the column."

b. Signal operation instructions.—(1) Signal operation instructions are issued for the technical control and coordination of signal communication. They are prepared by the communication officer of the unit and are issued by authority of the unit commander. They are used principally in the higher units.

(2) Signal operation instructions for a contemplated tactical operation are generally issued in advance of the operation. They may remain in effect during the entire operation or cycle of operations. They are issued as separate items and the various items are changed as circumstances require, not necessarily at fixed intervals.

(3) Items with which mechanized units are particularly interested are the serials relating to call signs and frequencies.

c. Plans.—For mechanized units, there are a few type plans for the employment of radio which will fit certain given situations. To illustrate, one situation may require all stations in the unit to operate on one frequency; another situation may require a grouping of the radio sets into three tactical nets. There are other normal groupments. These plans of employment are indicated as plan "A," plan "B," plan "C," etc., and so announced in paragraph 5 of the field order. After the unit commander has announced his tactical plan or scheme of maneuver, the communication officer recommends the type plan best

suited to meet the tactical needs. The unit commander informs his communication officer regarding his general tactical plan as early as possible.

d. Axes of signal communication.—The principles governing the selection of the various axes of signal communication for mechanized units do not vary from those employed in horse cavalry units.

e. Command posts.—(1) The factors governing the selection of command posts for mechanized cavalry units are similar to those pertaining to all combat units. In general, the location selected should favor—

(a) Control of subordinate units.

(b) Facility for signal communication; particularly locations favorable to radio operation and suitable routes for messengers.

(c) Concealment from hostile observation, both aerial and ground.

(d) Cover from hostile fire.

(e) Shelter.

(2) One individual in each command group is charged with the responsibility of disposing vehicles and personnel in locations affording the maximum concealment and dispersion consistent with the factors stated above. The location of the most important radio command vehicles should be favored.

(3) Command post locations should be published promptly to all concerned. Whenever the move can be anticipated, warning of a contemplated movement should be given in advance to superior and subordinate commanders and to the unit communication officer.

(4) When the command post moves, particularly during the periods immediately prior to, during, or immediately following combat, it is desirable that a guide be left at the old command post location for a reasonable time in order to direct messengers to the new command post.

SECTION XI

SERVICE TROOP

129. Duties.—*a.* The service troop is designed to furnish transportation for the mechanized cavalry regiment in the garrison and in the field. It also maintains a center for the

care and maintenance of the regimental vehicles in the garrison and a collecting agency for salvage vehicles on the march. It maintains a mobile or semi-stationary repair center in the field. In the mechanized cavalry regiment the training and employment of the service troop personnel should be confined principally to the development of efficiency in their various technical functions.

b. The transportation platoon is responsible for maintaining and operating its equipment with a high state of efficiency at all times. It is necessary that its personnel should have ample training hours to devote to the care of equipment, the development of competent drivers, and practice in marching in convoys.

c. The maintenance platoon is a repair unit designed for regimental repair functions. It requires highly trained mechanics, dependable personnel, and the maximum number of training hours for technical training.

130. Transportation.—*a.* In garrison, the transportation platoon maintains a service park for the regimental vehicular equipment, a dispatch office, a pool for administrative passenger cars, first and second echelon maintenance for its own equipment, and a pool for truck transportation available to the regimental commander.

b. On the march the transportation platoon absorbs the troop train to form the regimental trains commanded by the service troop commander. When the regiment goes into camp the kitchens and baggage trucks may report to their respective troops while the remainder of the train forms a park under the direction of the transportation officer. In a tactical situation the trains are usually formed well in rear of the combat element, depending on the distance needed for security. On the road during a tactical situation the trains move at the designated rate of march, either at extended distances of about 50 to 100 yards between vehicles or by sections extended to greater distances.

131. Maintenance.—*a.* In garrison.—The maintenance platoon in the garrison performs regimental maintenance, maintains a shop through which the troops may obtain spare parts, maintains an inspection agency for vehicles of the regiment, and is a training center for the regimental mechanics. The maintenance platoon also maintains a motorcycle repair shop,

a spare parts stock room, a machine shop, a paint shop, a battery and ignition shop, a blacksmith and welding shop, and an office. All the maintenance records of the regiment pass through the maintenance office where the regimental commander has available a complete history of costs of regimental repairs to vehicles. All vehicles which are required to go to higher echelon shops for repair are inspected by regimental maintenance personnel.

b. In the field.—The maintenance platoon is organized to permit functioning in the field as a unit. Under exceptional circumstances it will be required to furnish detachments. The maintenance platoon is the last unit in the regimental column on the march and operates directly under the maintenance officer, who is able at any time to report to the regimental commander the location of the last vehicle in the column.

c. During marches.—When a vehicle falls out of the column the troop repair truck falls out with it. If the personnel of the troop repair truck cannot put the vehicle in running condition within a reasonable length of time (a few minutes), the troop chief mechanic instructs the driver to await the arrival of the regimental maintenance platoon. The chief mechanic of the regimental maintenance platoon, upon arriving at a disabled vehicle, makes a diagnosis and assigns a mechanic to perform the necessary repair. The maintenance platoon does not leave that location until the disabled vehicle is running or being towed. These disabled vehicles are collected with the maintenance platoon and the maintenance officer does not release them to join their organizations until he is able to forward them in groups under a competent noncommissioned officer. Under certain conditions the trouble having been properly diagnosed in the disabled vehicle, the maintenance officer may send the platoon forward while the particular vehicle is being put in repair. Upon arrival in bivouac the maintenance officer repairs vehicles that have been towed in unless unable to complete the job in time for the next day's march. He also receives reports from organization commanders through the motor officer of all minor repairs and adjustments necessary to be completed.

d. During combat.—When the regiment operates against a hostile force the maintenance platoon is usually left in rear at a point well removed from the sphere of activity where it sets up a semi-stationary service park. From this park it is

able to repair vehicles and operate forward on missions of salvage. Under the direction of the motor officer the maintenance officer can locate and pick up disabled vehicles and return them to the park for repair. Normally, vehicles disabled in combat are brought to the main axis of movement where wreckers or other towing vehicles pick them up and return them for repair. The work of salvage under combat conditions is particularly hazardous but must be done efficiently and rapidly. Therefore, in combat the maintenance officer must have available under his immediate direction the entire equipment of his unit. In certain situations the regimental commander may direct wreckers to accompany the combat squadrons, although this method deprives the maintenance officer of his most efficient means of salvage and delays the accomplishment of his mission. It is sometimes practicable to send the wreckers forward on the axis of movement to be available more quickly. On long marches it is necessary to attach extra gasoline trucks to the maintenance platoon.

132. Supply.—The functioning of the service troop in the matter of supply is described in CFM, volume III.

INDEX

	Paragraphs	Page
Action:		
Defensive.....	92, 108	111, 123
Delaying and harassing.....	82, 85	101, 105
Dismounted.....	94, 103	113-117
Mounted.....	95, 104	113-121
Offensive.....	107	122
Agencies of signal communication.....	126	131
Ammunition supply.....	122	129
Armament.....	99	114
Armored car.....	75	94
Communication.....	78	95
Control of units.....	78	95
Leadership.....	76	94
Units.....	79	96
Attachment of sections.....	121	128
Attack, methods of.....	101	115
Backing.....	19	11
Band.....	52	87
Base element.....	16	11
Car commander and driver.....	11	7
Change of direction.....	18	11
Ceremonies, dismounted.....	50	87
Ceremony for escorts.....	65	91
Characteristics of—		
Cavalry.....	67	92
Combat cars.....	87	106
Machine-gun platoon.....	100	114
Combat, offensive.....	91	108
Combat missions.....	96, 102	113-115
Commander, armored car.....	76	94
Commands and signals.....	14	9
Communication.....	78, 98, 106, 118	95, 114, 121, 126
Control of.....	111	123
Concurrent instruction.....	2	1
Control:		
Of armored car units.....	78	95
Machine-gun troop.....	111	123
Coordination.....	119	126
Crew.....	21	11
Combat car squadron.....	29	27
Cross-country driving.....	7	4
Defensive action.....	92, 108	111, 123
Delaying and harassing action.....	82, 85	101-105
Dismounted action.....	94, 103	113, 117
Dismounted ceremonies.....	50	87
Drill:		
Combat car.....	25	21
General rules for.....	13	9
Machine-gun troop.....	33	57
Mortar.....	46	78

INDEX

	Paragraphs	Page
Driver, responsibility of.....	4	2
Driving instruction.....	5	3
Duties, service troop.....	129	149
Employment:		
Machine-gun troop.....	112	123
Signal communication personnel.....	127	145
Escorts:		
Function and procedure.....	64	90
Ceremony.....	65	91
Execution of missions.....	80, 83	97, 102
Field equipment, preparation for inspection of.....	61	89
Fire control.....	117	125
Formations.....	15	9
Brigade and regiment.....	49	86
Ceremonies.....	54	87
Combat car squadron.....	26	23
Inspections.....	60	89
Reviews.....	56	88
Front of attack.....	70	93
Function and procedure of escorts.....	64	90
Functioning of mechanized cavalry.....	68	92
General rules for drill.....	13	9
Headquarters troop.....	47	82
Instruction:		
Car commander and driver.....	11	7
Concurrent.....	2	1
Driving.....	5	3
For occupants, motor vehicles.....	12	7
Motorcyclist.....	9	5
Purpose.....	1	1
Scope.....	3	2
Inspection:		
Field equipment.....	61	89
Procedure.....	62	90
Inspections:		
General.....	59	89
Types of.....	63	90
Leadership.....	76	94
Machine gun:		
Platoon.....	38	68
Characteristics.....	100	114
Organization.....	99	114
Section.....	36	67
Squad.....	34	59
Troop.....	40	72
Control.....	111	123
Defensive action.....	108	123
Employment.....	112	123
Offensive action.....	107	122

INDEX

	Paragraphs	Page
Maintenance, motorcycle.....	10	6
Maintenance platoon.....	131	150
Methods of attack.....	101	115
Methods of fighting.....	69	93
Mission, mortar platoon.....	113	123
Missions:		
Armored car troop.....	74	94
Combat.....	96, 102	113, 115
Execution of.....	80, 83	97, 102
Special.....	86	105
Mortar drill.....	46	78
Mortar:		
Platoon.....	45	76
Mission.....	113	123
Section.....	44	75
Squad.....	43	73
Mortar fire, technique of.....	42	72
Motorcycle maintenance.....	10	6
Mounted action.....	95, 104	113, 121
Night operations.....	93	112
Observation.....	117	125
Occupation of positions.....	120	126
Occupants of motor vehicles, instructions for.....	12	7
Offensive action.....	107	122
Offensive combat.....	91	108
Orders.....	128	147
Brigade and regiment.....	49	86
Organization, machine-gun platoon.....	99	114
Pass in review.....	58	88
Personnel:		
Employment of signal communication.....	127	145
Rules for at mounted ceremonies.....	53	87
Training of.....	41, 73, 77	72, 93, 95
Plans.....	128	147
Platoon.....	23	23
Combat car.....	30	30
Machine-gun.....	38	68
Maintenance.....	131	150
Mortar.....	45	76
Rifle.....	39, 110	72, 123
Transportation.....	130	150
Platoons, designation of.....	28	26
Positions, selection and occupation of.....	120	126
Purpose of instruction.....	1	1
Reconnaissance.....	81, 84, 89, 120	100, 104, 107, 126
Responsibility of driver.....	4	2
Review.....	57	88
To pass in.....	58	88

INDEX

	Paragraphs	Page
Reviews, general.....	55	87
Rifle platoon.....	39, 110	72, 123
Section.....	37	67
Squad.....	35	65
Rules for personnel, mounted ceremonies.....	53	87
Scope of combat training, small units.....	66	89
Scope of instruction.....	3	2
Section.....	22	13
Machine-gun.....	36	67
Mortar.....	44	75
Rifle.....	37	67
Sections, attachment of.....	121	128
Security.....	90, 109	107, 123
Selection and occupation of positions.....	120	126
Service troop.....	48	82
Duties.....	129	149
Shell fillings.....	115	124
Signal communication:		
Available agencies of.....	126	131
Employment of personnel.....	127	145
Required.....	125	130
System.....	124	129
Signals.....	14, 20, 27	9, 11, 23
Smoke screens and blankets.....	116	124
Special missions.....	86	105
Speed of movement.....	71	93
Speeds.....	17	11
Squad:		
Machine-gun.....	34	59
Mortar.....	43	73
Rifle.....	35	65
Squadron, combat car.....	32	46
Standards.....	51	87
Supply.....	97, 105, 132	114, 121, 152
Supporting elements, combat car units.....	88	106
Technique of mortar fire.....	42	72
Terrain, use of.....	72	93
Track vehicle.....	6	3
Training of personnel.....	41, 73, 77	72, 93, 96
Transportation platoon.....	130	150
Troop.....	24	17
Combat car.....	31	35
Headquarters.....	47	82
Machine-gun.....	40	72
Service.....	48	82
Units, armored car.....	79	96
Weapon, mortar platoon.....	114	124

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